IS/IT Outsourcing: Issues, Evidence, and Lessons from Kuwait - A Developing Country

by

Abdulwahed Mohammed Khalfan

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School of Computing

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The candidate confirms that the work submitted is his own and the appropriate credit has been given where reference has been made to the work of others.

Abstract

This study presents an overview of a national case study exploring the IS/IT outsourcing phenomenon in the different sectors of a developing country. The study is empirically based and provides a logical extension to earlier research studies/endeavours in the field of IS/IT outsourcing. Kuwait has been used as an example of a developing country where the data collection for this study was carried out. The primary data on IS/IT outsourcing practices, obtained for the first time in Kuwait, were collected by means of survey questionnaires and semi-structured interviews supported by organisational documentation.

To the best of our knowledge, this research represents the first effort in IS/IT research to address and discuss outsourcing issues in the context of developing nations using a holistic approach. The research seeks to identify the factors that give rise to this phenomenon, and the degree to which they influence the practices, procedures, and outcomes of IS/IT outsourcing arrangements in Kuwait. The overall research aimed to provide a comprehensive pragmatic picture of IS/IT outsourcing practices, including motivations, risk analysis, contract drafting and legal issues, vendor selection criteria, evaluation practices, decision-making process, and post-evaluation experience. There is growing evidence within the Kuwaiti environment to suggest that organisations are not achieving the desired benefits from their IS/IT outsourcing operations. IS/IT outsourcing projects in Kuwait are still undertaken in ways that are not clearly related to strategic change. IS/IT outsourcing decisions are rarely taken from a thorough and detailed strategic perspective, and efficiency improvements remain an overriding consideration. A central argument of this thesis concerns the need to understand the complex cultural and environmental implications of IS/IT outsourcing within developing countries' context, as this practice is becoming increasingly important in developing nations.

It is, therefore, the aim of the this study to contribute to the growing body of knowledge in this area by exploring the theoretical foundations underlying the process of outsourcing and developing a better understanding of this process based on a holistic view in terms of the critical success factors that lead to success and failure of IS/IT outsourcing projects in Kuwait. The findings of this study have emphasised the importance of proposing best practice guidelines for IS/IT outsourcing practices in Kuwait specifically and other 'similar' developing countries and such a set of best practice guidelines is set out in this thesis. A better understanding of the IS/IT outsourcing process as embodied in the best practice guidelines is important, as it can be said with certainty that the drive towards outsourcing of IS/IT services/applications in the different sectors of Kuwait is on an increasing trend and gathering momentum.

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Chapter One

This chapter provides a general introduction to the nature and intent of the research. It begins with an introduction to the IS/IT outsourcing phenomenon. It then explains the purpose and objectives of the study, and significance to both practitioners and researchers. A research framework is then presented to describe both the research problem and the research methodology that this study has adopted. The chapter concludes with the overall organisation of the thesis.

1.1 Background

As the business environment world-wide is moving towards the information-based economy, there has been a considerable belief that IT would be the tool and mechanism to enhance and progress this economy as more and more organisations have become dependent on IS/IT systems to support their business processes. At the same time, the growth of multinational business has been accompanied by significant increases in international IS/IT operations. Yet, research addressing the implications of IT globally is scanty (Abdul-Gader, 1997). During the past few years, the world has witnessed an unprecedented expansion of business into global markets. The idea of a "global village", envisioned by McLuhan (1964), has finally come true. At the same time IT has played a significant role in the race towards globalisation. In fact, IT has been an important enabler of globalisation (Palvia and Palvia, 1996).

The developing countries are faced with new opportunities but also with enormous difficulties in their effort to utilise IT in order to become integrated into the emerging global economy. IT has the potential of providing enormous developmental benefits in almost all sectors. It can increase productivity and add quality and improve management decision-making process. It is widely believed that IT has often been the primary vehicle for reducing the gap between advanced nations and the developing countries (Van Ryckeghem, 1992)

IS/IT outsourcing was emerged in recent years as an important and valuable IS/IT strategy in reducing this gap. The role of IS/IT outsourcing in its various forms has, in recent years, achieved considerable prominence in the search for IS/IT solutions. The IS/IT outsourcing phenomenon shifts from traditional forms of hierarchical IS/IT governance to a new market led governance (Loh and Venkatraman, 1992b). In doing so, various functions of IS/IT can be individually

outsourced through a contract with a vendor. As IS/IT outsourcing represents a fundamental change in the way "firms govern their IT infrastructure" hence it could be viewed as an administrative innovation (Loh and Venkatraman, 1992b). However, IS/IT outsourcing is a complex process involving many features. Outsourcing like any other facets of management, "has different features and characteristics depending on the particular business environment and organisational culture." (Lee and Kim, 1997).

On the one hand, IS/IT outsourcing has become a critical management instrument in facing highly sophisticated IS/IT demands/solutions, on the other hand, to date, IS/IT outsourcing has received "little academic attention in the non-Western context" (Lee and Kim, 1997, p.1). There has been a continuous need to "standardise the IS/IT outsourcing language" as the world enters the global economy (Rothery and Robertson, 1995, p.4)

The main objective of the present study is to gain a deeper, grounded understanding of why the different Kuwaiti organisations opt for IS/IT outsourcing solutions despite the fact that IS/IT outsourcing poses a number of inherent risk factors (e.g. security, hidden cost) which challenge its success.

As the IS/IT outsourcing trend gains momentum, it is prudent to stop and reflect on several questions. Undoubtedly, there has been 'massive' shift in IT governance within the different Kuwaiti sectors and various organisations. It is clear that IS/IT outsourcing is a multi-faceted phenomenon that should be studied broadly in the context of developing countries. The lesson is that the solutions must make sense for the particular context in which they will be implemented considering all the cultural and environmental factors.

This study represents an attempt at empirically examining the fundamental nature of this phenomenon. Specifically, is IS/IT outsourcing motivated by 'problems or difficulties'? Do these problems translate into greater degrees of IS/IT outsourcing in Kuwait? This work attempts to address problems facing IS/IT management, planners and practitioners in the IS/IT environment in Kuwait taken as an example of a developing country. The thesis draws on a comprehensive field study of the phenomenon in practice to illustrate that it is no wonder that one of the major barriers

to the successful dissemination of technology in the developing countries is the shortage of skills (Avgerou, 1993).

In Kuwait, IS/IT outsourcing is a relatively new but fast-growing phenomenon. Until the mid 1980's, Kuwaiti organisations outsourced only specific application development projects. They were reluctant to consider large-scale IT outsourcing projects due to the potential exposure of confidential data and lack of reliable IT service providers. The central argument advanced is that IS/IT outsourcing poses important challenges to different organisations and is not simply a quick-fix panacea, but must be dealt with from a strategic perspective. Another important area that is addressed by this study is the role of culture and environmental constraints in the process of IS/IT outsourcing.

To help investigate these issues this study intends to explore the factors that affect the success of IT outsourcing in Kuwait. It was envisaged that outsourcing is increasing and gaining momentum in Kuwait. One of the objectives is to find out the reasons for, and criteria used, in making outsourcing/insourcing decisions.

1.2 Research Purpose and Objectives

The reasons that led to the undertaking of this research study in the area of IS/IT outsourcing are various.

First, IS/IT outsourcing has become an important issue is MIS research and also the most widely discussed topic in information systems today (Collins and Millen, 1995). Equally, an increasing number of organisations have become involved in the process of IS/IT outsourcing as an important strategy in the IS/IT field.

Second, one of the critiques surrounding the proliferating IS/IT outsourcing phenomenon is the lack of theory to assist in the assessment of the organisational situation, prior to the engagement in contractual arrangements (Kern and Willcocks, 1996).

Third, existing knowledge on IS/IT outsourcing is largely based on comments and anecdotal case descriptions, while empirical research is limited and "little is known about outsourcing in general" (Collins and Millen, 1995, p.5), as King and Malhotra (2000, p. 332) state "IS outsourcing has not been systematically addressed through research, and practitioners' decisions to outsource are often based on faulty or incomplete criteria and assumptions".

Fourth, very little academic research has addressed the IS/IT outsourcing phenomenon in the developing countries context. To date, as noted earlier, IS/IT outsourcing has received "little academic attention in the non-Western context" (Lee and Kim, 1997, p.1). Whilst the use of IS/IT outsourcing in Kuwait has increased greatly over the last ten years, no empirical research has yet been found to discuss such issues (Khalfan and Gough, 2002a).

Fifth, there is an urgent need for the development of a holistic approach to IS/IT outsourcing to decrease the number of failing cases. Note Lacity and Hirschheim (1993) argue that the "failures of outsourcing are under-represented" in the literature.

The objectives of the study are therefore:

1. To clarify the confusion surrounding the concepts and practice of IS/IT outsourcing, to provide an assessment of the level of familiarity, experience and comprehension of the essential elements of IS/IT outsourcing within the sample organisations, to develop a conceptual holistic view from the literature (to be explored in the field), and to scrutinise both the soft and hard dimensions of the changes involved in IS/IT outsourcing implementation.

2. To provide and integrate contextual situational insights and essential factors (e.g. environment, culture) into the general consideration of IS/IT outsourcing aspects, concepts, arguments and approaches. Equally, to show how different background organisations have used and implemented different approaches to IS/IT outsourcing in Kuwait and to show how outsourcing strategies can be a pivotal tool for information technology transfer (ITT) from the developed nations to developing countries like Kuwait.

3. To improve organisational experience and outcomes in two ways, firstly, by deriving a better understanding of the activities that are undertaken by organisations, and how these activities are being dealt with can produce different results, and secondly, by providing a guidelines in the form of critical elements and factors that can engender success or otherwise in IS/IT outsourcing efforts.

1.3 Significance of Study

The study is important to both practitioners and IS/IT researchers, especially in the developing countries in general and in Kuwait in particular.

1.3.1 Significance to practitioners

The results from this research will be of great benefit to top managers, IS executives, strategic planners, business managers and others who are considering the implementation of an IS/IT outsourcing strategy. This study intends to help managers to understand better IS/IT outsourcing practices from a holistic view. It provides a set of critical success and failure factors in the effective implementation of IS/IT outsourcing. It also determines change priorities which together can set the critical path to implement effective IS/IT outsourcing projects. As this study provides insights on the 'how' components of IS/IT outsourcing implementation, it helps practitioners to have a complete picture of the process of implementation, and to comprehend how the way certain elements are managed can engender success or otherwise in IS/IT outsourcing efforts.

1.3.2 Significance to IS/IT researchers

This study can be considered as step toward a more comprehensive understanding of IS/IT outsourcing. It unifies different schools of thought on IS/IT outsourcing into one integrative perspective. The study also clarifies the confusion surrounding the concept and practices of IS/IT outsourcing. Furthermore, it provides an empirical assessment of the essential elements in IS/IT outsourcing implementation. The study also proposes generic guidelines for the holistic implementation of IS/IT outsourcing. The overall findings of this study can guide future work to areas where there is a potential for further improvement in IS/IT theory (and practice).

1.4 Overview of Research Approach

As mentioned earlier, the main aim of this study is to propose a set of generic guidelines for the effective implementation of IS/IT outsourcing strategy in any organisation based on a holistic approach. Therefore, measurements of both 'what' and 'how' are needed to understand the process of IS/IT outsourcing. The 'what' aspects of research require the use of quantitative methods, while the 'how' aspects are best investigated using the qualitative methods.

In this study, 'a methodological triangulation' approach which combines both quantitative and quantitative methods is adopted. This is achieved through a questionnaire survey ('hard' data) as the selected quantitative method, and semi-structured ('soft' data) interviews to collect qualitative data.

Based on the literature reviewed, a questionnaire was developed to collect primary data from a sample of public, private and semi-private organisations in Kuwait. The survey attempts to assess the level of importance attached to the elements that constitute the holistic approach to IS/IT outsourcing implementation. While scrutinising both soft and hard issues of IS/IT outsourcing, a number of interviews were conducted to supplement the findings of the survey questionnaire to discover the soft issues relevant to IS/IT outsourcing practices.

After the collection of quantitative and qualitative data, the analysis of these data was done. Based on a comprehensive discussion and interpretation of the data, a set of generic guidelines is proposed to improve IS/IT outsourcing practices.

1.5 Organisation of the Thesis

The main body of the thesis is organised into nine chapters including this introductory chapter.

The second chapter contains a review of the IS/IT outsourcing phenomenon and related literature. The literature review provides a basis for the empirical investigation undertaken in this research.

The third chapter contains a review of the cultural factors, environmental factors, information technology transfer, and provides background information on Kuwait.

Chapter four, research methodology, focuses on the design of the research methodology implemented in the study. A suitable research framework and methodology for the empirical investigation of IS/IT outsourcing practices is developed. A case study approach involving interviews and questionnaires was adopted in the study. The chapter illustrates the construction of the research instrument to answer the research questions.

Chapters five, six, and seven set out the detail of the analysis of the public, private, and semi-private sectors' data, based on the methodology discussed in chapter four. Their purpose is to analyse the data collected through the fieldwork undertaken in Kuwait.

Chapter eight provides some practical guidelines for IS/IT outsourcing especially in the Kuwaiti environment and other 'similar' developing countries.

Chapter nine summarises the outcome of the study, and its contribution to IS/IT outsourcing research. The limitations of the study are acknowledged, and some further research work is proposed.

Chapter Two

Literature Review

2.1 Introduction

In this chapter, the relevant literature is examined critically, building from a general introductory review of the academic origins of IS/IT outsourcing phenomenon to a more focused scrutiny of the issues surrounding the topics considered along the way include the context.

The evolving literature on IS/IT outsourcing has been concerned with "make-or-buy", or "in-source-or-out-source" decisions in relation to the organisational behaviour (Coase, 1937; Williamson, 1975; Loh and Venkatraman, 1992 a,b; Elfting and Baven, 1994; Venkatraman and Loh, 1994; Hart, 1995) and transaction cost economics (Williamson, 1985; Benko, 1993; Lacity and Hirschheim, 1993; Grover et al., 1994; 1996; Nam et al., 1996). However, the decision to in-source or outsource has never been an easy task for the people involved in IT management. The reason is that it involves considerable complexity and business risks (Cronk and Sharp, 1995; Antonucci, and Tucker, 1998).

The whole literature review, presented in two parts, provides a basis for the overall study and the empirical investigation of this research. This chapter concerns the first part, which is associated with the fundamental issues of IS/IT outsourcing. This involves definitions of IS, IT, outsourcing, historical background, outsourcing motivation, risk analysis, types of outsourcing, decision-making process, vendor selection process, client/vendor relationship, and post-implementation evaluation.

2.2 Definition of Information Systems (IS) and Information Technology (IT)

Information management consists of planning, organising and controlling information resources (Earl, 1989, p. 24). The concepts of managing IS/IT departments in organisations are interfaced in a complicated way and different authorities approach them from different viewpoints (see, for example, McFarlan and McKenney, 1983; Blokdijk and Blokdijk, 1987; Brancheau and Wetherbe,

1987; Moynihan, 1991; Ciborra and Jelassi, 1994; Galliers and Baker, 1994; Allen and Scott, 1995; Robson, 1996; Ward and Griffiths, 1996; Willcocks et al., 1997).

Information technology (IT) is defined by Applegate et al. (1996) and Earl (1989, p. 95-101) as consisting of six elements: technical information processing (facilities and operating systems), information and its management processes, applications and their development methods, communication and communication networks, structures, and controls that determine how IT is utilised.

Information systems strategy is produced by a function that aims at planning those information systems (IS) which concretely support the organisational and business activities from the IS user and activity viewpoints. Information systems strategy is a long-range plan with decisions on IT development measures. It must correspond to the requirements of business objectives and take the critical success factors of business and outside interest groups into account. In particular, the new systems should create competitive advantages or strategic opportunities for the organisation.

2.3 Outsourcing Historical Background and Developments

IS/IT outsourcing is not a new phenomenon. Outsourcing options have existed since the early days of data processing in many different forms (e.g. payroll and other routine processing). As early as 1963 when Perot's Electronic Data Systems (EDS) handled data processing services for Frito-Lay and Blue Cross (Lacity and Hirschheim, 1993). IT functions such as time-sharing, software programming, operation of large computers and purchase of packaged software have to some extent been outsourced since the 1960s (Hammersmith, 1989). Indeed, outsourcing has appeared in the form of application development contracts, in facilities management agreements and time-sharing deals, for several decades (Earl, 1991, 1996).

While early IS/IT outsourcing efforts dealt with single-system contracts holding a small share of the IS budget, outsourcing is now a big issue because it spans multiple systems and influences an organisation's financial balance (Lacity and Hirschheim, 1993).

Despite the fact that IS/IT outsourcing differs, as a concept, from facilities management (FM), the misconception has created some confusion. Hence, facilities management is defined by the Central Computer and Telecommunications Agency (CCTA,1990) as:

"The term FM is defined as the management and operations of part or all of an organisation's IT services by an external source: a) at an agreed service level; b) to an agreed cost formula; and c) over an agreed time period. The FM contract may further include IT constancy, the management of IT services, the provision of new services and ownership of hardware and software"

In contrast, Hoskyns (1991) has defined outsourcing as follows:

"IT outsourcing is a broader definition of FM to cover the contracting out of specified services to a third party within a controlled, flexible relationship. Outsourcing therefore covers FM type services and range of contracts with more intangible benefits. It includes not only such services as computer centre operations, network operations and application management, but also systems integration."

As Leonard (1992, p.44) says, " Facilities management arrangements have been used... since the 1960s and other types of outsourcing are very common". Huff (1991) points out that outsourcing has really been around for a long time. Previously, the outsourcing of data centre had been referred to as "facilities management". Where before, these types of agreements had been strictly contractual in nature, today's outsourcing agreements are in the spirit of long-term partnerships and alliance.

To a large extent, Facilities Management (FM) occurred during the 70s and 80s when a variety of reasons were tempting organisations behind FM services. Hussain and Hussain (1997) have listed a number of factors that motivated organisations to go towards FM. In addition, Hussain and Hussain (1997) point out the difference between FM and outsourcing. They state that FM has been historically concerned with "operation of IT" (p.221), whereas outsourcing is primarily concerned with programming and with "the use of advanced computer skills like teleprocessing". Yet, there are many other terms used in practice, which include: systems integration, third party maintenance,

data centre privatisation, service bureau. However, there is no consensus about the meaning of these terms, and many classifications are neither complete nor mutually exclusive (Ang, 1994).

In addition, Apte (1990) suggests that outsourcing is an 'umbrella term' which covers many information services, including:

- Information processing services include data entry, transaction processing, clerical tasks.
- Contract programming addresses software development and maintenance activities.
- System Integration (SI) involves development of a fully integrated system (hardware, software, and /or networking) from design to implementation.
- Support operations for maintenance/service and disaster recovery.
- Facilities management (FM) agreement places the responsibility of operation and support of data centre functions or system.

As seen from the above list, Apte (1990) argues that the term outsourcing covers the "entire spectrum of information services" (p.289).

The practice of outsourcing began in 1954, when General Electric Corp contracted with Arthur Anderson and Univac (Klepper and Jones, 1998). The first contract where the term 'outsourcing' was used was announced in 1988, when Wisconsin's Department of Administration outsourced facilities management to Omni Resources (Loh and Venkatraman, 1992 a). Furthermore, the first widely published large-scale outsourcing operation was announced in 1989, when Eastman Kodak outsourced its data centre operations to IBM, and its microcomputer systems operations to Businessland. This outsourcing operation was an important event that influenced the proliferation pattern of outsourcing, as it:

"...represented a higher level of visibility.. than prior user-vendor relationships due to the prominence of the two companies and the magnitude of the contract ($500 million)", and "...seems to have provided a major impetus for managers in other organisations to seriously evaluate outsourcing" (Loh and Venkatraman, 1992 a)

The importance of Kodak's IT outsourcing model cannot be over-stated: statistical analysis shows that the IT outsourcing trend can be attributed to 'imitative behaviour' of Kodak's decision (Loh and Venkatraman, 1992 a)

The first results of scientific research on IS/IT outsourcing were published in 1992 (Loh and Venkatraman, 1992a, b; Lacity and Hirschheim, 1993). In the trade literature, the term IS outsourcing first appeared in 1990 (e.g. Rochester and Douglas, 1990).

2.4 IS/IT Outsourcing Definition

Precise definitions of IS/IT outsourcing differ in the literature (Glass, 1996). But there is a general agreement that it is the carrying out of IS/IT functions by a third party (Kettler and Walstrom, 1993). In general business terms, outsourcing can be used as a management option to contract out many services from outside providers, such as catering services, logistics, transportation, and many others. In the context of this thesis, however, IS/IT outsourcing refers to Information Systems/ Information Technology functions only.

Outsourcing is what Williamson (1985) calls a "market versus hierarchy" decision. Rands (1992) calls it the "make-or-buy" decision, while Gurbaxani and Whang (1991) and Porter (1980) label it "vertical integration". In the literature, IT researchers have also proposed many definitions of IS/IT outsourcing and some of these are listed in Figure 2.1.

Figure 2.1: IS/IT Outsourcing Various Definitions

Author	Definition
Lacity and Hirschheim (1995, p.4)	"... third party management of IS assets, people and/or activities required to meet prespecified performance level" and includes the operating of data centres, network and communication management, systems development and maintenance, and training.
Loh and Venkatraman (1992a , p.9)	"IT Outsourcing as: the significant contribution by external vendors in the physical and/or human resources associated with the entire or specific components of the IT infrastructure in the user organisation."
De Looff (1997, p.30)	"IS outsourcing is the commissioning of part or all of the IS activities an organisation needs, and/or transferring the associated human and other IS resources, to one or more external IS suppliers"
Cheon et al. (1995, p. 209)	"The organisational decision to turn over part or all of an organisation's IS functions to external services provider(s) in order for an organisation to be able to achieve its goals. This definition includes the following external services: applications development and maintenance, systems operations, network/communications management, end-user computing support, systems planning and management, and purchase of application software, but excludes business consulting services, after-sale vendors services, and the lease of telephones lines. An organisation can obtain these services through complete outsourcing, facilities management, systems integration, time-sharing, and other contracts (including rental, installation and procurement, and maintenance and programming"

It should be noted, however, that there are no major differences among these definitions, which embrace common components:

- The notion of two or more parties, where one party is the client organisation (i.e. user, firm) which outsources to one or more other parties (i.e. external service providers; vendors; third party supplier; independent third party; external agency, etc.);
- The notion of the other party refers to the external service provider (i.e. vendor) that is an external organisation and not part of the user organisation (i.e. client); and
- The other party vendor (i.e. IT service provider) agrees to perform some IS/IT activities through (fulfil, commissioning, provide, subcontract, procurement) for the user/client organisation.

The author has adopted as a working definition of IS/IT outsourcing the definition offered above in Figure 2.2 by Cheon et al. (1995).

It should also be noted that the term IS/IT is preferred to the term IS outsourcing or IT outsourcing, to cover all aspects of information systems and information technology as defined in section 2.2.

2.5 Business Scope

The information technology outsourcing services are booming. Industrial analysts predict that the global market will grow from $86 billion in 1996 to more than $137 billion in 2001 (Diromualdo and Gurbaxani, 1998).

In addition, there is the fact that on conservative estimates, IT outsourcing may well represent, on average, 30-35% of IT budget by 2002 (Lacity and Willcocks, 2000 a,b). IT outsourcing has been recognised as one of the top ten issues for success in the 1990s (Rockart et al., 1996). In the past decade, the IT outsourcing industry has been growing at a staggering rate of about 20% a year, reaching around $55 billion in 1998, while outsourcing deals have been getting larger and longer (Caldwell and McGee, 1997).

Additionally, the Gartner Group (1999) project 16.3% growth rate, world-wide, between 1997-2002, to create a $120 billion IT outsourcing market by 2002, with the US share of $51 billion of this amount. At the same time, research conducted by International Data Corporation (Marphy et al., 1999) forecasts a global IT market for more than $151 billion by 2003.

2.6 IS/IT Outsourcing Motivation

The growth of IS/IT outsourcing as an important IT strategy can be attributed to a number of factors. The most important consideration when organisations think about outsourcing is the benefits that the organisations could obtain (Yang and Huang, 2000). Altinkermer et al. (1994) stress the importance that the organisation should carefully examine all the potential benefits and risks of outsourcing in order to facilitate or gain more understanding of various issues which will help the top management to make "knowledgeable decisions about outsourcing" (p.252). Much previous research has concentrated on the advantages and disadvantages of outsourcing (see, for

example, Loh and Venkatraman, 1992a; Ketler and Walstrom, 1993; Lacity and Hirschheim, 1993; Grover et al., 1994; Loh, 1994).

There are many reasons why organisations consider IS/IT outsourcing. The motivations for IS/IT outsourcing have been proposed in terms of three main types of expected potential benefits: strategic, economic, and technological (Loh and Venkatraman, 1992 a,b; McFarlan and Nolan, 1995; Grover et al., 1996, Yang and Huang, 2000). Strategic benefit means that organisations need to concentrate on core functions for promoting competitiveness by outsourcing routine IT activities (Apte, 1990; Schiffman and Loftin, 1991; Loh and Venkatraman, 1992b; Alexander and Young, 1996), and creating new strategic initiatives (Henderson, 1990, Yang and Huang, 2000). Second, economic benefits accrue substantial savings through economies of scale and labour specialisation through utilising human and technological resources of the IS service providers (Apte, 1990; Huff, 1991; Lacity and Hirschheim, 1993; Mclellan et al., 1995; Yang and Huang, 2000). Third, technological benefits refer to ability of the organisation to gain access to leading-edge technology (Apte, 1990; Altinkemer et al., 1994). Other researchers have attributed the lack of skilled IT manpower to be a prime motivation (Apte, 1992; Slaughter and Ang, 1996). In addition, increased availability of outsourcing services providers has motivated outsourcing (Apte, 1992). Additionally, there are other drivers behind the IS/IT outsourcing process, including Business Process Re-engineering (BPR) (Rothery and Robertson, 1995; Diromualdo and Gurbaxani, 1998), organisational restructuring, benchmarking, new alliances or partnership (Rothery and Robertson, 1995).

2.6.1 Cost Reduction and/or Infusing Cash

The most direct and immediate benefits associated with IT outsourcing are cost reduction and cash infusion. Cost saving may be achieved by delegating the IT services to an external vendor which cost less than the internal IT department. Cash infusion may be obtained through either the sale of assets or transfer of IS staff to an external IT vendor. The cost saving or reduction that organisations expect to realise because of outsourcing is often "the primary factor driving the move to outsourcing" (Huff, 1999). IT vendors claim that between 5% to 20% perceived savings of the IS/IT costs will be achieved. The actual savings that have been realised by some organisations were consistent with these estimates while for other organisations the savings were

not as great. To add to the picture, the Boston Consulting Group (1991) studied more than 100 key organisations with extensive outsourcing experience practices and concluded that most Western firms outsource primarily to save on overhead or induce short-term cost savings. This finding was consistent with McFarlan and Nolan (1995), who argue that, until the 1990s, the major drivers for IT outsourcing were primarily cost-effective access to specialised IT skills.

For IS management, IS/IT outsourcing can be a "traumatic experience", but for the organisations it can mean substantial cost reduction (Henderson, 1990; Lacity and Hirschheim, 1993; Collins and Millen, 1995; Lacity and Willcocks, 1998; Huang and Yang, 2000). In an empirical comparative research study among three countries (U.S.A., Japan, Finland) on IT outsourcing practices, Apte et al. (1997) found out that cost reduction was the most important advantage recognised by managers in all the three countries. Moreover, in a recent study of IT sourcing decisions "expected IT cost savings" was the most-cited reason for outsourcing appearing in 80% of the decisions considered (Lacity and Willcocks, 1998). Many studies have emphasised that organisations are experiencing great pressure to cut IT costs (Loh and Venkatraman, 1992a,b; Slaughter and Ang, 1996; Ang and Cummings, 1997). Outsourcing often results from decision makers' beliefs that IT service vendors can outperform their internal IT organisations in achieving cost-cutting goals. In similar vein, Willamson (1975) argues that the sourcing choice between carrying out activities in-house, or under so-called "hierarchical governance", or outsourcing these IT activities under "market governance" is determined by the relative costs of production and transaction.

The study conducted by Mclellan, et al. (1995) suggested areas where IT and business cost could be decreased by the IT outsourcing activity. These included hardware costs, software costs, IS personnel costs, and business operation costs. The savings made by these factors were directly related to "efficiency and effectiveness improvements" (p. 309). Also, they found 19% reduction in IT costs in the first year, and the IT managers were expecting more savings in the subsequent years, given the relatively fixed nature of the outsourcing contract price. Clark et al. (1995) pointed to a number of mechanisms through which savings can be realised including: (1) reducing IS staff levels and transferring personnel to a vendor; (2) reducing overhead expenses (e.g. office space, power, etc.); (3) transforming information services from a fixed asset to a variable expense which can be later decreased; and (4) "leveraging purchasing power with IT vendors" (p. 228). The argument that IT vendors are 'inherently' more efficient than the organisations is usually

based on notions of production and labour specialisation from economies of scale. According to Willcocks et al. (1995), mass production efficiencies will be expressed as lower data processing costs, and/or lower hardware/software purchasing costs as vendors buy in 'bulk', which allows them to get discounts. Also, labour specialisation efficiencies come from the wider access that vendors can have to technical IT skills.

2.6.2 Improving Service Quality and Productivity

The quality and productivity of IT services may be improved through the deployment to an external agency (Clark et al., 1995). This occurs for numerous reasons. The vendor may (1) have access to a better technological environment; (2) have more qualified or more motivated staff; (3) provide a variety of IT services; (4) have a better management system of co-ordination and control; and (5) be more committed than the internal staff to making the alliance with the client organisation work well (Clark et al., 1995).

2.6.3 Shortage of Skilled Human Resources

There is difficulty in finding qualified and skilled manpower; in other words, a lack of human resources (Slaughter and Ang, 1996; Saunders et al., 1997; Huang and Yang, 2000). On the other hand, the demands for skilled human resources are rapidly increasing. Severe shortage of information technologists is said to be a world-wide dilemma and the forecasts are formidable (Apte, 1992). At the same time, Collins and Millen (1995) found out from their empirical research that the most cited benefits of IT outsourcing, according to the top American firms, was benefiting from the "skills of outside staff" (p. 11). Moreover, Avgerou and Cornford (1998) attribute the failing of IS projects to the lack of skilled staff to build "the required technical components or to maintain them" (p. 51). They also believe that shortage of IT technical human resources is a world-wide problem; therefore they suggest outsourcing 'sophisticated' technical projects in order to find a solution for the sharp shortage of technical expertise. Meanwhile, current hiring trends suggest that the IS/IT services vendors are attracting, through high salaries and other advantages, much of the technical and managerial talent that exists (Clark et al., 1995).

Gable (1996) identified three reasons to opt for outsourcing in regard to manpower. He noted that organisations (1) cannot attract appropriate technical staff; (2) cannot keep appropriate technical staff; and (3) cannot afford appropriate technical staff.

Furthermore, Diromualdo and Gurbaxani (1998) point out that IT outsourcing is playing an important role in filling the gap in the wide disparity of skills and capabilities necessary to realise the potential of IT, that organisations are confronted with.

2.6.4 Gaining Access to State-of-the-Art- Technology and Know-how

Access to leading-edge technology is a persuasive argument for outsourcing (Apte, 1992; Clark et al., 1995; Palvia 1995). In fact, outsourcing can provide immediate access to the most up-to-date technology. Apte (1990) argues that IS/IT outsourcing may increase "the competittivness of products offerings" through the use of the state-of-the-art technology that may not be easily available in-house.

2.6.5 Flexibility and Control

Crucially, outsourcing can provide organisations with greater capacity for flexibility, especially in the purchase of rapidly developing new technologies, or the myriad components of complex systems. Collins and Millen (1995) have recognised the importance of flexibility and control in the outsourcing arrangements as an important impetus. Quite often, it is more effective or much easier for an IT vendor to implement a radical (managerial, technical, or organisational) change than it would be for an internal IS group (Clark et al., 1995). This is simply because of two main reasons. First, the vendor might have more expertise and experience with change management and initiatives. Second, the vendor is "under far less pressure to bend to the bureaucracy or politics of an organisation" (Clark et al., 1995, p.63).

2.6.6 Strategic Choice

The sourcing debate has moved from whether to outsource, to what and how to outsource (Venkatraman, 1997, p.60). By and large, the conventional wisdom argues that core activities should stay in-house whilst non-core activities can be outsourced in order to preserve core

competencies (Prahalad and Hamel, 1990; Quinn and Hilmer, 1994; Lacity et al., 1995). On the one hand, IS/IT outsourcing needs to be considered strategically (Grover et al., 1994). On the other hand, the strategic sourcing literature points out that outsourcing of goods and services should be integral to an organisation's overall strategy formulation process (Quinn and Hilmer, 1994; Venkatraman, 1997; Quinn, 1999).

For example, outsourcing may allow a bank to improve its focus on strategic use of IT (Schiffman and Loftin, 1991; Huber, 1993). Similarly, it allows management to focus the available IS talent on strategic IS activities, promoting competitiveness (Huber, 1993; McFarlan and Nolan, 1995), also to concentrate more on core business activities and competence to add value for customers (Quinn and Hilmer, 1994; Collins and Millen, 1995; Palvia, 1995). However, defining what is core competency is often fraught with many ambiguities. A core competence refers to "a skill, process, or resource that distinguishes a company and makes it stand out from the rest" (Handfield, 1999, p.29). Core competence often provides global competitors with a unique competitive advantage, in terms of cost, technology, flexibility, or overall capability (Palvia, 1995; Handfield, 1999). At the same time Mclellan, et al. (1995) pointed out that outsourcing can play a vital support role in many strategic initiatives and motivations, including restructuring the organisation, mitigating technological risks and uncertainty, and last but not least, changing the organisation boundaries.

This kind of argument is also extended by Porter (1990) on competitive advantage thinking, noting that core competencies are those activities that offer long-term competitive advantage, and therefore must be kept in house (Quinn and Hilmer, 1994). In fact, Quinn and Hilmer (1994) coined the term "strategic outsourcing" in order to provide a guide as to what is meant by the strategic core of the organisation and those other activities which are necessary to attain the organisational goals (Alexander and Young, 1996; Quinn, 1999).

2.6.7 Improved Business Performance

Loh and Venkatraman (1992b) proposed business performance as one of the determinants of IS outsourcing activities. Other researchers have realised that this motivation is a long-term objective, which can only be detected after a period of time (Mclellan, et al., 1995).

2.6.8 Increased Number of IS/IT Vendors

One of the industrial factors that has helped in accelerating the movement towards IT outsourcing is the rapid emergence of third-party vendors who offer reliable, affordable IT services across a wide breadth of IS/IT products and services. The number of firms has grown substantially (Apte, 1990). Simultaneously, the number of external services agencies offering IT services has grown substantially and it is commonly assumed that the market for their service is expected to increase (Mehler, 1992; Collins and Millen, 1995).

2.6.9 Faster IT Application Development

It is widely believed that off-loading IT application development to an external vendor would enable the organisations to focus their internal resources and energies on those IS functions which remain internally. At the same time, the IT application (e.g. software) can be developed in a much faster and more efficient way by the IT vendor for numerous reasons. First, the IT vendor may be able to retain very skilled personnel. Second, the vendor has a portfolio of development projects, so in case one technical solution fails, it would be very possible to offer an alternative. Third, the IT vendor retains vast IT resources and capabilities. Clark et al. (1998) have examined this issue empirically and found out that this view was supported by many organisations.

2.7 Risk Analysis

IT outsourcing, as a legitimate management strategy, has deficiencies and drawbacks as well as having several advantages.

Following Willcocks and Margetts (1994), risk is taken to be "a negative outcome that has a known or estimated probability of occurrence based on experience or some theory" (Willcocks et al., 1999, p.286). Also risk has different meanings in different contexts (Jurison, 1995). The purpose of risk analysis is to assist the IT managers in making informed decisions about IT investments and developing risk management polices concerning outsourcing strategies. It should be emphasised here that the distinction between risk and uncertainty is not always clear in the management literature and there is "considerable overlap in the usage of the term risk and uncertainty" (Baird and Thomas, 1985). Venkatraman and Loh (1994) concluded in their

empirical study of 209 outsourcing practices in the Fortune 500 corporations, that outsourcing should be viewed as the "process of balancing benefits and risks through a portfolio of relationships". It has been argued that there are "too few academic studies of types of IT outsourcing risk, their salience and their mitigation" (Willcocks et al., 1999, p.286). The main studies, perhaps, have been by Earl (1996) and Klepper and Jones (1998) as well as Ang and Toh (1998), where they discussed a case history of a failed software development project, and then offered guidelines for successful developmental projects. Additionally, Jurison (1995) provided a theoretical risk-return analytical mode for making IT outsourcing decisions. Similarly, Willcocks and Lacity (1999) investigated 'risk mitigation tactics' using a single case study. Willcocks (1998) generated risk reduction guidelines from studying 40 organisations and their IT outsourcing practices. In addition, Currie and Willcocks (1998) note that a relationship exists between the scale of IT outsourcing and risk. Total outsourcing, which involves more than 80% of the IT budget, carries the most risk, whereas in-sourcing carries the least risk.

A number of disadvantages are reported in the literature, including hidden cost and security issues:

2.7.1 Hidden Cost

Although the price of entry into IS outsourcing can be relatively low in relation to in-house cost, it can rise steeply after the organisation is 'locked-in'. Lacity and Hirschheim (1993) call it "excess fees" and that note it was a major concern expressed by many organisations. In a more recent study, Currie and Willcocks (1997) revealed from their empirical investigation that the major risk which materialised after initiation of outsourcing was hidden cost as also was observed earlier by Hendry (1995).

In their empirical research, Lacity et al. (1995) indicate "in virtually every supplier-written contract we studied, we uncovered hidden costs, some adding up to hundreds of thousands – even millions- of dollars" (p. 91). Ducan (1998) believes that hidden cost is in fact some kind of "opportunistic behaviour" (p. 677). Willcocks et al. (1995) argue that sources of hidden cost may all relate to "weakness in contracting".

2.7.2 Information Security Issues

Data security refers to the level of protection provided to prevent unauthorised access and 'tampering'. As noted by Fink (1994) and Sherwood (1997), information security is an area often neglected in outsourcing arrangements. Information security covers both data security and business recovery planning (Lee, 1995). When the IT function is outsourced to an external service provider, the organisation no longer retains full control of information security (Lee, 1995), whereas full control of the information security is retained when the IT function is provided in-house. According to Collins and Millen (1995), "corporate security issues" was one of the major frequently cited reservations made by American firms.

Data confidentiality should be viewed as a critical element by the different parties, and therefore should be respected by the vendor throughout the contracting period and after termination. Taking into consideration that a particular vendor may work simultaneously with two competing organisations, extra caution must therefore be taken to ensure that data confidentiality is not compromised through proper 'operational safeguards' (Lee, 1995).

The following outsourcing drawbacks are also expressed in the literature:

- Becoming dependent on outside service providers (Kakabadse and Kakabadse, 2000).
- Losing control over critical functions (Kakabadse and Kakabadse, 2000) or over IT suppliers (Quinn and Hilmer, 1994), or finally, over the quality of the software and project timetable (Foxman, 1994).
- Loss of strategic alignment (Walker, 1985).
- Loss of critical skills, or developing wrong skills or loss of cross-functional skills (Kakabadse and Kakabadse, 2000). In the same vein, loss of internal technical knowledge is an important risk factor which should be taken into consideration. Clark et al. (1998) argue that the "intellectual capital" by which the organisation is able to create sustainable competitive advantage may be at risk. Further, they note that whenever an IT service is outsourced to a vendor, the client loses some understanding of the service over time. At the same time, much of the "new knowledge", which was gained by the vendor through an innovative service to a client, is not transferred to the client and remains with the vendor. Even more importantly, the

organisation is very likely to lose its ability to "keep abreast of technological advances" (Clark et al., 1998, p. 67)

- As outsourcing may lead to a re-definition of organisational boundaries, structural adjustments may be needed involving human resources. Such adjustments may incur social as well as financial costs (Kakabadse and Kakabadse, 2000).
- Generation of a low trust environment where there is lowering the morale of permanent employees (Currie and Willcocks, 1997).

- Loss of flexibility (Clark et al., 1995). If an organisation is "locked into long-term outsourcing contracts" (p. 67), it can be very difficult to reverse the decision to outsource, as the organisation would have to rebuild its internal technological infrastructure (see Figure 2.3).

- Cost of reverting to the in-house option should the IT outsourcing fail can be substantial (Kakabadse and Kakabadse, 2000).

2.8 IS/IT Outsourcing in Practice

There are different types of IS/IT outsourcing. For example, Grover et al. (1994) have proposed the following taxonomy: (1) complete outsourcing, (2) facilities management outsourcing, (3) systems integration outsourcing, (4) time-sharing outsourcing, and (5) other types of outsourcing. The first type, complete outsourcing, involves the transfer of the entire computer or communications centre with related IS personnel from the IT service receiver to the IT service provider. Other terms include "pure versus hybrid outsourcing" (Buck-Lew, 1992), systems integration, third party maintenance, data centre privatisation. Additionally, Lacity and Hirscheim (1993) provide a taxonomy of outsourcing options. They are divided into three categories of IS/IT outsourcing: body shop, project management, and total outsourcing. The first one, the body shop, is primarily for short-term demands like the use of contract programmers. The second category, project management, is primarily used for a specific project or portion of the IS work. The third category, total outsourcing, is where the management's decision is to turn over the entire hardware and software support to an external vendor and for the vendor to be in full charge of the data centres and telecommunications operations.

2.8.1 Insourcing

According to Lacity and Willcocks (1998), total insourcing is "the decision to retain the management and provision of more than 80 % of the IT budget internally after evaluating the IT services market" (p. 371).

2.8.2 Selective Outsourcing

According to Lacity and Willcocks (1998), selective outsourcing is "the decision to source selected IT functions from external provider(s) while still providing between 20 % and 80 % of the IT budget internally. This strategy may include single or multiple vendors" (p.371). Currie and Irani (1999) believe that 'selective sourcing ' is a variant of multiple supplier sourcing. According to Jurison (1995), the majority of companies are outsourcing selectively for particular IT services where the vendors offer clear business advantages. Additionally, Jurison (1995) indicates that "most companies are outsourcing less than 40 % of their IT functions" (p.239).

Based on an empirical research, Lacity and Willcocks (1998) indicated that selective outsourcing decisions achieved expected costs savings with a "higher relative frequently than total outsourcing" or total in-sourcing decisions. Currie and Irani (1999) note that multiple supplier sourcing and selective sourcing are outsourcing strategies designed to mitigate the risks of relying on a single supplier, as is the case in total outsourcing arrangements.

2.8.3 Total Outsourcing

According to Lacity and Willcocks (1998), total outsourcing is " the decision to transfer the equivalent of more than 80 % of the IT budget for IT assets, leases, staff, and management responsibility to an external IT provider" (p. 371).

2.8.4 Types of IS Outsourced Activities/Functions

Saunders et al. (1997) claim that the activities outsourced could include system programming, application development systems and application maintenance, network management, end user computer support, and technical support system. Collins and Millen (1995) note that education and

training was the IS activity most outsourced by the American firms, followed by management support of PCs, telecom/network services, application/systems development, and finally, application maintenance. Lacity and Willcocks (1998) identify the most commonly outsourced IT functions as mainframe data centres, software development and support services, telecommunication/networks, and finally, support of existing systems.

2.8.5 Differences between Public and Private sectors on IS/IT Issues

Bryson and Currie (1995) stress the importance of delineating the two sectors, private and public. There are many fundamental differences between the two sectors in terms of political, legal, structural, and objectives setting. The distinct differences between the private and government organisations are the core of the public administration theory and have been the topic of on-going stream of research. Many differences have been identified, for example, in personnel management, decision making process, and management of information systems.

2.8.6 Human Resources Outsourcing

The subject of retained skills in outsourcing arrangements has received surprisingly little attention (Currie, and Willcocks, 1997). Equally, the outsourcing of human resources (HR) has received little attention in the MIS literature (Klass et al., 1999).

Organisations are increasingly relying more on outside contractors to perform HR activities (Klass, et al., 1999). In some cases, human resources outsourcing has been shown to reduce costs by providing economies of scale, and also increasing the incentives and accountability, and finally, increasing access to specialised expertise (Csoko, 1995). In other cases, outsourcing was found to create inefficiencies because IT service providers lacked "the firm-specific knowledge and engaged in opportunistic behaviour" (Ulrich, 1997). McLellan (1993) identified three core personnel issues that bring economic and strategic benefits to outsourcing: cost economics, enhanced career opportunities and reduced staff turnover, and removal of the salary sub-units. One of the potential costs noted concerns the negative consequences that outsourcing can have for employee commitment, loyalty, and trust in many organisations in the short to medium term (Capelli, 1999; Hall, 2000).

Barrett (1996) asserted that, ultimately, outsourcing is concerned about people and jobs. In most outsourcing arrangements, IS professionals and their careers are affected in some way. It is a common practice in outsourcing deals to transfer IT employees from the client organisation to the outsourcing vendor, or terminate the professionals who will no longer be needed as a result of the new operating arrangement. For this reason, outsourcing is an emotionally charged subject for IS professionals. Moreover, Laribee and Michaels (1994) note examples of early outsourcing ventures that resulted in the loss of IT jobs after the transition to a vendor. Therefore Eckerson (1992) argues the importance of developing an effective line of communication during the transition process. This line of argument is also supported by Gupta and Gupta (1992), Richey (1992), and Wray (1996). They state that IS employees often feel threatened and demoralised by outsourcing. They also stress the need to involve key IT personnel in the decision process so that these employees have a full understanding and appreciation of why outsourcing is necessary and what the implications of these decisions are. They contend that doing so will lead to a more successful outsourcing venture. In the same vein, IS professionals' perception and attitudes towards outsourcing can have a significant impact on any outsourcing evaluation or decision. Management must effectively address the perceptions of those employees. Accordingly, Longnecker and Stephenson (1997) indicated that organisations should develop a "viable plan" to deal with human resources problems associated with IT outsourcing.

2.8.7 New Trends in IS/IT Outsourcing Arrangements

Two new trends have become evident in IS/IT outsourcing:

2.8.7.1 Global Outsourcing Operations

The term "global IS/IT outsourcing" refers to the business practice of looking outside of the firm for foreign vendors capable of performing or sub-contracting various functions previously performed in-house domestically" (Chen and Lin, 1998, p. 117). Global outsourcing activities have become a prominent management practice in which organisations contract all or part of their IT operations to one or more foreign suppliers. The strategic use of foreign IS/IT resources has become one of the critical topics and most widely implemented management tools for organisational change (Chen and Lin, 1998). A number of driving forces have been reported including: 1) manpower and skill advantage, and 2) technical and cost advantage.

2.8.7.2 Application Service Providers (ASP)

An ASP is a new class of vendor who markets software and services on a 'rental' or 'subscription' basis. From the customer's point of view, the software 'feels' like it is available at his desktop, but, in fact, it is running on the ASP's servers at remote data centres. The application is designed to be one to many; that is, one version of the application serves many customers with minimal customisation. Different types of ASP's may offer services to different types of customers, segmented by customer size, type of software, and degree of customisation (Hansen and Pepoon, 2000). In brief, ASPs consolidate and manage a mix of technology, alliance, and services including application software, Web hosting and IT outsourcing, independent software vendor, and network/communication (Klemenhagen, 1999). Applications are almost delivered through the Internet due to its popularity and ease of use.

2.9 Decision-Making Process

The primary objective of managers in making decisions on IT outsourcing is to minimise total cost (service and transaction cost) and maximise total value to the organisations. Ngwenyama and Bryson, (1999) stressed the importance for top management delineating outsourcing decisions to carefully examine the following questions: (1) What are the risks and benefits of different outsourcing strategies? (2) What is the "potential vulnerability" to the organisation if the vendor fails to perform the IT activities according to the details of the contract? (3) How to protect the organisation from "opportunistic bargaining" by its vendors? (4) How should outsourcing contacts be structured to ensure quality and reliability? (5) What level of core competence should be retained?

In fact, IS outsourcing decisions are complex (Ngwenyama and Bryson, 1999), because they involve a number of factors, including: (1) entering and managing a long-term relationship with an 'autonomous agent', and (2) exposing vital organisational asset and resources to the control of a third party agent. The outsourcing decision should consider the various factors (Huang and Yang, 2000), including the tangible (such as cost, computing facilities, human resources) and the intangible (such as strategy, quality) factors. McFarlan and Nolan, (1995) argued that the organisations can enhance the productivity and improve the quality by outsourcing IT activities. So, different organisations will have different considerations. Willcocks et al. (1999 b) advocate

that the most common approach to 'evaluating' IT outsourcing options or strategy is: (1) "pursue in-house improvements", (2) establish performance benchmarks and identify full costs, (3) "again pursue improvements", and (4) make in-house/ outsource comparison. They also assert that the most successful IT outsourcing deals are selective outsourcing based on short-term contracts.

2.9.1 Outsourcing Decision Strategies

Some organisations have experienced success with their outsourcing strategies, while for others there has been failure (Rochester and Douglas, 1990; Lacity and Hirschheim, 1993). One explanation for some of the failure is the complexity of IS/IT outsourcing decisions (Loh and Venkatramn, 1992a,b; Lacity and Hirschheim, 1993). In addition, another explanation that was mentioned about the failure of IT outsourcing is the lack of decision models and tools to help the managers systematically analyse outsourcing decisions (Chaundry et al., 1992; Reponen, 1993; Alpar and Saharia, 1995). An empirical study by Lacity and Willcocks (1998) found out that in 53 out of 63 outsourcing cases, managers reported unsatisfactory outcome. Several organisations have 'prematurely' terminated contracts and re-established their data centres (Lacity and Hirschheim, 1993; Reponen, 1993). Based on all that, a conclusion can be made here that a wrong decision can result in loss of competencies and capabilities, exposure to unexpected risks, and eventually business failures.

Two basic IS outsourcing strategies (single vendor and multiple vendor), have been adopted by organisations (Ngwenyama and Bryson, 1999), and the most common is the single vendor approach (Rochester and Douglas, 1990).

1. **Single vendor outsourcing strategy**

It has been argued that in such an approach, the client organisation can develop a strong relationship with the 'one' vendor (Ngwenyama and Bryson, 1999). Deming (1986) suggests that developing a long-term relationship with one vendor can result in considerably reducing the cost and improving the quality. However, single vendor approach has been heavily criticised (Lacity et al., 1994; Cross, 1995) for opening the door to "opportunistic bargaining and performance failure vulnerability" (Ngwenyama and Bryson, 1999, p. 353).

2. Multiple vendor outsourcing approach

Porter and Millar (1985) has recommended to use "several competing vendors" to ensure the low cost and high performance and quality. Porter further argues that the outsourcers (client organisations) can increase their 'bargaining power' by contracting to a number of IT vendors who are in competition with each other. Therefore, to avoid opportunism, organisations should consider multiple vendor strategy (Huang and Yang, 2000). As argued by Lacity et al., (1995), arrangements that minimise dependency, such as multiple vendors and different suppliers for consecutive phases, appear to produce the best results.

2.9.2 Outsourcing Contract

2.9.2.1 Contract Definition, Approach and Theory

A contract is defined as: "An agreement between two or more people or organisations, 'parties' to the contract, which creates rights and obligations for those parties (Klinger and Burnett, 1994, p. 58). A contract enables the different parties to achieve their strategic and commercial aims. It regulates the relationship of the different parties, pointing out risk and costs. It also can provide a framework for continuing to work together in the computing environment. A good contract is often the central key to a successful IT outsourcing relationship (Lee, 1995). As Lacity and Hirschheim (1993, p. 243) explain, "the contract is the only mechanism that establishes a balance of power in the outsourcing relationship". The contract usually defines the rights, liability, and expectations of both the outsourcing parties (i.e. the vendor and the organisation), and is often the only solid mechanism for regulating the relationship between them. However, research on IT outsourcing negotiations and contract building tend to be mostly theoretical and very limited in scope (Lee, 1995). Currie (1995) points out that one of the most significant problems of any IT outsourcing deal is "defining the legal contract that underpins the client-supplier relationship" (p. 194).

Contracts are an important and critical part of outsourcing decisions, and can be very complicated due to the fact that there is often a transfer of assets, including people, equipment, software, and buildings from the client to the vendor. Based on their empirical research, Diromualdo and Gurbaxani (1998) identified elements "critical" to the success of contractual agreements,

including: (1) the contract type, (2) performance measurement and evaluation scheme, (3) the compensation systems, and (4) assignment of decision-making rights to the vendor.

Willcocks and Fitzgerald (1994) conducted an empirical investigation where they looked at 226 contracts and a further 30 case studies, and found that the contract is a critical 'foundation stone' for all subsequent relationships whether the organisations were selectively or totally outsourcing. Similarly, Currie and Irani (1999) stress the importance of considering the "risk assessment" (RA) while examining the outsourcing contracts. In fact, RA considers the relationship between the client and IT services supplier in the formulation of the outsourcing contracts.

2.9.2.2 Contract Types

Fitzgerald and Willcocks (1994) distinguish six types of contracts, each with a different price mechanism (See Figure 2.2).

Figure 2.2: Types of Outsourcing Contracts

Contract	Basis of Payment
Time and material Fixed fee	actual use of personnel and material lump sum for defined work load or service
Fixed fee	A lump sum for a defined work load or service
Fixed fee plus variable element	Predicted changes in, for example, work loads on business circumstances
Cost plus management fee	real costs incurred by vendor plus a percentage
Fee plus incentive scheme	some benefits that accrue to client company, or performance over and the above an agreed baseline
Share of risk and reward	how well client company or joint venture performs

Source: Adapted from Fitzgerald and Willcocks (1994)

Moreover, outsourcing contracts range from fixed fee to incentive types with penalties in case of unsatisfactory performance. Further, many contracts also contain early termination provisions and incentives schemes for technology change. Penalties and incentives are important features of any type of IT outsourcing contract, as they serve as "inducements to the vendor and as mechanisms by which the outsourcer can manage shirking in the relationship" (Ngwenyama and Bryson, 1999, p.353)

Diromualdo and Gurbaxani (1998) note that different types of contract apply in different circumstances. For example, strategic alliance or joint venture type would be chosen if the organisation required specialised expertise and knowledge of the business process as well as tight control over the resources involved in the work. In general, the literature distinguishes between two types of contracts: (1) comprehensive contracts, and (2) incomplete contracts.

1. Comprehensive (Complete) Contracts

A comprehensive (complete) contract specifies every possible contingency. A contract for the purchase of computer supplies can be an example of a comprehensive contract.

2. Incomplete Contracts (Flexibility)

Most business contracts are incomplete, because when a contingency arises the different parties must bargain to resolve the conflict. Additionally, Harris et al. (1998) suggest that the term so-called "incomplete contract" is synonymous with a flexible contract. Most outsourcing contracts are incomplete since rapid changing technology, uncertainty (i.e. complexity), and organisational environments make it so difficult to specify every contingency in the contract. Harris, et al (1998) and Diromualdo and Gurbaxani (1998) call for "contract flexibility" which must be built into outsourcing contracts. Lawrance and Lorsch (1967) argue that organisations are influenced by their environment as organisations need to operate with a level of flexibility appropriate with the uncertainties faced in the external environment.

One method of gaining flexibility is through incomplete contracting. Indeed, incomplete contracting purposely leaves certain parts of the agreement open for renegotiation, depending on the changing circumstances of the parties involved or perhaps including a change mechanism in the agreement in order to protect both the buyer and the seller (Harris et al., 1998). Moreover, using incentive contracts is another mechanism to provide the agreement of IT outsourcing with flexibility. This means that the contract can include some method by which the vendor shares in any cost savings or increased profits made under the agreement.

2.9.2.3 Critical Criteria for Contract Negotiation

The key issues that need to be addressed in the contract are:

- **Need for Negotiation**

Negotiations may be defined as: "The bargaining process between two or more parties seeking to secure predetermined objectives, usually with a clear sense of purpose" (Klinger and Burnett, 1994, p. 13). In fact, compromise is an essential feature of most successful negotiations. To build a strong contract, much negotiation is needed between the different parties to discuss all possible contingencies, including the Service Level Agreement (SLA) of the contract.

- **Service Level Agreement (SLA)**

SLA is usually a major part of any outsourcing contract and has been considered as the most important component of any outsourcing deal (Klinger and Burnett, 1994; Parry, 1997). In short, SLA refers to the "details and/or quantifies in schedules the minimum level of service which the customer (i.e. client organisation) will obtain" (Parry, 1997). In addition, the SLA contains the technical details of the proposed systems, performance levels and standards, methods of monitoring, the output (i.e. deliverables), procession priorities, response time, termination notice, and so on. Further, Parry (1997, p. 36) listed the major "heads in a typical SLA" for an outsourcing agreement, including:

- Management responsibilities which define the overall management of the services.
- Staff provision levels which ensure that the vendor obtains of qualified staff to carry out the contract.
- Operational requirements which indicate the timescales of the computer operation, and services such as help desk, disaster recovery plan, and security arrangements.
- Systems and technical support levels which list the applications software to be used and indicate the procedures for installing new systems.
- Maintenance system.
- Escalation procedures for unresolved complaints.

Furthermore, Kern and Willcocks (2000) identify typical elements for service enforcement and monitoring:

- application development performance measure ;
- benchmarking ;
- customer satisfaction survey;
- performance reporting.

- **Price Mechanism and Flexibility**

Pricing scheme is the central key to any outsourcing agreement. In fact, Diromualdo and Gurbaxani (1998) call it "vendor compensation" (p. 71). The pricing schedule is either specified in advance for the duration of the contract or negotiated each year. A major task in determining the future cost (i.e. price schedule) is quite difficult given the uncertainty in future technologies and business conditions. At the same time, any additional services outside the previously agreed service scope (e.g. overtime) will be charged according to the agreed price rates. Also, the timing of the payments has to be agreed in advance. Similarly, when specifying a price schedule in advance, Diromualdo and Gurbaxani (1998) stressed the importance of ensuring the proposed prices are competitive through creating a highly competitive vendor selection process.

It should also be emphasised here that there are other important provisions which should be considered while negotiating an outsourcing contract. These include specifying ownership of technology assets, particularly jointly developed ones, protecting intellectual property rights for intangibles such as application software, control over key staff, and whether and how products and services are sold to competitors (Diromualdo and Gurbaxani, 1998)

- **Contract Duration**

The performance of an obligation should be done in a 'reasonable time' that the two parties have agreed on.

It is widely believed that in order to achieve a flexible contract, the contract duration should be short (Fitzgerald and Willcocks, 1994). However, it is difficult to define a short contract precisely,

but it could be argued that a contract that is tied to the 'technological life cycle' would be a short contract (Harris et al., 1998). For example, in the UK there is a trend towards short contracts as one study of 226 contracts in the UK found that 95% of them were less than 5 years in duration (Fitzgerald and Willcocks, 1994).

- **Termination Clause**

The contract itself often contains termination conditions. There are two different types of terminations, early and exit. In addition, the contract may permit either party to terminate on notice to the other party.

- **Early Termination**

If the parties involved in the agreement decide during the course of the contract that they wish to terminate the agreement, they can agree to discharge it (Klinger and Burnett, 1994). Sometimes, one party wants to release the second party from completing the contract. There have been some high-profile outsourcing disasters, where some organisations terminated the contract with the IT vendors for a number of reasons (Currie and Irani, 1999). However, it should be borne in mind that switching costs are expensive whether the organisations choose to move to another vendor or re-build an in-house department.

- **Exit Termination (Provisions)**

According to Shepherd (1999, p. 79), exit provisions define the "responsibilities of each of the parties when the contract is terminated". It may also include arrangements of services while handing-over to another vendor or the internal IS department. The importance of 'exit provision' stems from the fact that the organisation is potentially exposed to risk from the IT services in case of contract termination. In any case, the IT services should be handed over in a 'non-disruptive' environment. This is particularly critical with "complex multi-service or total outsourcing contracts" (Shepherd, 1999, p. 79). In addition, a 'partial termination' clause allows for the scope of the contract to be reduced either geographically, organisationally, or in the range of IT services provided. Shepherd (1999, p. 79) also believes an issue which is related to exit provision is the ability to 'undertake a major re-negotiation in the light of changing circumstances'.

- **Key Vendor Personnel**

It has been argued that it is of fundamental importance to the organisation to know who will be responsible for the IT services, or technology from the vendor side. In other words, the key vendor's employees should be explicitly listed within the scope of the contract, with their expertise and experience (Kern and Willcocks, 2000). Additionally, the vendor has to disclose to the client organisation how it will structure its organisation so as to be able to respond to their needs.

- **Dispute Resolution**

Kern and Willcocks (2000) assume that the contract should point out clearly what is the "resolution mechanism" to deal with any dispute among the different parties. Further, if the dispute cannot be resolved in the first instance, the contract should provide a further 'escalation procedure', where appropriate people should be contacted (e.g. arbitration).

- **Post-Contract Management**

The post-contract management agenda is mainly concerned with enforcing the contract and achieving the stipulated terms after its being signed by the different parties. Kern and Willcocks (2000) identify five contractual dimensions which should be enforced during the post-contract period: financial control and monitoring; penalty payments; monitoring of service levels and/or products; performance measurement; and selection of key interface points.

2.10 Vendor Selection Criteria

Michell (1994) found that vendor definitions of outsourcing varied according to "the business needs and position in the market" (p. 224), also the range of IS services offered by IT vendors is large and growing rapidly. While discussing the demand side of the client organisations in their search for the "best" vendor, it should be borne in mind that such process of selecting and evaluating a vendor is viewed as "important" and treated "seriously" (Michell and Fitzgerald, 1997, p. 232). In fact, the vendor selection process requires a great deal of attention and should not be taken in a rush. Apte (1990) specified the 'characteristics' of a vendor which organisations should carefully analyse:

- Track Record: refers to the previous record of the vendor's experience and achievements, and determining the quality of the completed IT projects and outsourcing services previously provided by the vendor.
- Human and technology resources: refers to the main resources that the vendor needs to provide which means that the project management skills as well as the specific software engineering skills of the vendor should be verified.
- "Staying power of the vendor" refers to the financial strength and the overall long-term viability of the vendor should be verified.

Diromualdo and Gurbaxani (1998) argue that the organisations must make sure that the vendor has the 'capabilities' required to meet the objectives of outsourcing. Also, according to Collins and Millen (1995) the three main factors contributing to the IT vendor selection were, based on their empirical research, price, the provider's track record, and the qualifications of provider's employees.

Furthermore, Michell and Fitzgerald (1997) have divided vendors into five main types:

1. IT consultancies and IT solution providers

These developed out of global consultancies specialising in IT and project management and moved into the IT outsourcing market in the late 1980s to take advantage of the lucrative markets (see, for example, EDS and Anderson Consulting).

2. Systems Houses

These are medium size companies but with less global reach. Many system houses are involved in long-term management responsibility for custom or package software and maintenance, concentrating on IT technical skills.

3. Hardware Vendors

These organisations have moved from being traditional hardware manufacturers and infrastructure providers to operational activities, software development, and IT consultancy (see, for example, IBM, DEC, and Seimens)

4. Ex-IT Departments

Many IT outsourcing vendors developed out of ex-IT departments of large organisations (Michell and Fitzgerald, 1997). These types of IT vendors have specific technical expertise which can be used within vertical industry groups at the operational level (see, for example, ITNet, and Barclays Computer operations).

5. Generic Outsourcers

These developed in the late 1980s to provide a range of outsourcing services not only to IS but also "managing the work environment and business services", and include cabling, IT hardware desktop operations (Michell and Fitzgerald, 1997).

2.10.1 Request-for-Proposals (RFP)

Choosing a vendor is by no means a simple process. However, creating a thorough request for proposals (RFP), and following up with diligent research and evaluation can go a long way toward ensuring success.

The process of selecting a vendor begins with the issuance of the RFP. The RFP is a document that surveys a group of vendors and yields information on their background history, IT services, experience, expertise and costs.

2.10.2 Client/Vendor Relationship

The key to a successful outsourcing arrangement is the relationship between the client and the vendor organisation (Ketler and Walstrom, 1993). Willcocks et al. (1999b) believe that "the area in IT

outsourcing that has received the least research attention so far is the relationship issue" (p. 290), and particularly the characteristics that determine "effective and ineffective outsourcing relationship". Clark et al. (1998) argue that the key to a successful vendor relationship is flexibility. In fact, flexibility is needed from the two parties, the client and the vendor, for the client to change the service requirement, and flexibility for the vendor to change the means by which service requirement are met. Diromualdo and Gurbaxani (1998) have suggested some factors which are quite important in maintaining a successful relationship with the vendor. These include, "contract type, decision rights, performance measures, and risk-and-reward allocation schemes", all have to be aligned with the "strategic intent" underlying the outsourcing initiatives. Strategic intent refers to the business impact upon the deployment of IT as improving the critical aspects of business performance. Diromualdo and Gurbaxani (1998) indicated that poor performance is often due to failure to define clearly the "intent and specific goals for outsourcing, to align the contract and relationship with strategic objectives" (p. 69). The senior management of the organisation must plan and control IT outsourcing alliances in a way that the organisation would not become "over dependent on", and as a result dominated by its partners (Clark et al., 1998). Also equally important, that even when the IT outsourcing arrangements involves information services that are "crucial" to the organisation business success, the management has to strategically control the "critical aspects" of the process by which the IT services are obtained.

There are several types of client/vendor relationship which can emerge from the outsourcing arrangement:

1. Partnership

The term 'partnership' is widely used in the context of outsourcing arrangements and has already been the subject of research (Henderson, 1990; Dyer and Ouchi, 1993; Shepherd, 1999).

It is important to note that partnership does not necessarily imply an absence of clear and well-defined contractual agreement as to the role and responsibilities of each party. Indeed, Lacity and Hirschheim (1993) argue that a clear contractual baseline is essential to the success of any outsourcing deal. Also, Choi and Willcocks (1994) have asserted that the partnership could not "substitute for detailed measurement and monitoring of vendor performance".

Henderson (1990) calls for "strategic partnership" and has listed a number of issues which should be taken into account while considering strategic partnership. These are joint planning, education, measurement and control, effective use of teams, multilevel human resources strategy, and technology.

2. Strategic Alliance

"Relationships involving efforts and significant resources of two or more organisations to create, add to, or maximise, their joint value" (Willcocks and Choi, 1995, p.68). In an independent research study, more than 500 interviews on 37 strategic alliance were conducted, and eight essential factors for 'successful alliances' were found (Kanter, 1994):

1. Individual excellence: both partners are strong and have something of value to contribute.
2. Importance: the relationship plays a key role in both partners' long-term strategic plans.
3. Interdependence: neither can accomplish alone what both can do together.
4. Investment: partners invest in each other.
5. Information: communication is reasonably open.
6. Integration: partners develop organisational linkages so they work together smoothly.
7. Institutionalisation: the relationship extent cannot be "beyond the deal-makers and cannot be broken on a whim".
8. Integrity: the partners behave in honourable ways towards each other.

3. Outsourcing process

Outsourcing brings about a tremendous change in the IS/IT organisation. This kind of change needs a careful and orchestrated 'change management' strategy (Palvia, 1995) in order to manage the change. In essence, Norris et al. (2000) indicate that the tools of change management are leadership, communication, training, planning, and incentive systems. They argue that these tools can all be used as levers and have the potential to mitigate barriers when applied correctly. On this dimension, Bancroft et al. (1998) and Gupta (2000) argue that the resistance to change is considered to be one of the main obstacles that faces organisations. Martin and Ching (1999)

proposed that to decrease resistance to change, people should be engaged in the change process in a helpful way that they would see and recognise the benefits to be gained from such change.

2.11 Post-Implementation Evaluation

Although many advantages have been reported in the literature for utilising outsourcing as a legitimate IT management tool for securing innovation and enhancing the performance of organisations, it was revealed by Lacity and Hirschheim (1993) that assessing and evaluating outsourcing agreements was a difficult task, since the duration of these contracts is quite long (5 to 10 years in some cases). Willcocks et al. (1996) also explored many difficulties and limitations in IT evaluation practices that organisations face. To elaborate more, very few organisations operate in an "integrated evaluation system covering strategic, business, end-user and technical performance across a system's lifetime" (Willcocks, 1994; Willcocks et al. 1996). Lacity and Hirschheim (1993) claim that the "failures of outsourcing are under-represented". Moreover, it could be argued that the success rate of outsourcing agreements has not been particularly high. For example, Lacity and Hirschheim (1993) reported that, of the organisations that they had studied carefully which had had outsourcing contracts in place for more than twenty years, 60% were dissatisfied and 40 % were actively thinking of terminating the agreements. In a later study (Lacity and Hirschheim, 1995, p.89), 70 % of the total outsourcing contracts were unsuccessful; however, on the other side, the success rate for selective outsourcing was much higher. Similarly, Lacity and Willcocks (2000b) have analysed 116 sourcing decisions, and found 38% of 'total' outsourcing decisions successful. By comparison, 77% of selective outsourcing and 76% of in-house sourcing decisions have successful outcomes. At the same time, Willcocks et al. (1999) indicate that recent research in the 1991-1999 period has shown that long-term, large-scale single supplier deals have been particularly risky (Lacity and Willcocks, 1998, 2000 a,b).

Willcocks et al. (1996) have argued the urgent and mounting need to judge vendor performance by using a number of matrices other than technical and service delivery criteria only. This line of argument is extended by Norris (1996), in which he calls for a more comprehensive evaluation system for vendor performance through the detailed assessment of the real "strategic and business contribution of IT".

A research study by Currie (1995) to evaluate an outsourcing agreement found that the project failed for the following reasons: (1) failure to meet the client requirement, (2) poor quality, (3) failure to deliver on time, and (4) logistical reasons (i.e. geographical and support problems).

According to Deming (1986), poor vendor performance is the result of poor communication and co-ordination. He argues that it is more costly to monitor and co-ordinate the activities of multiple vendors than for a single vendor. Lacity and Willcocks (1998) found that short-term contracts have achieved higher success rates than types of 'fee-for-contracts'.

Currie and Willcocks (1997) attribute much of the failure experience in outsourcing to (1) failure to identify 'comprehensively' present and future requirements, (2) loose drafting of contracts, (3) lack of awareness of cost managing the outsourcing, and (4) vendor 'opportunism'.

Also equally important, Collins and Millen (1995) found out from their empirical research that the most cited obstacle to implementation was "developing working relations between in-house and outside personnel" (p. 10). Also, another concern raised by the American organisations is in regard to the 'cultural fit' between the 'newcomers' and the organisation, as to what extent the 'outsiders' may be familiar with cultural norms of the organisation.

There are a number of important key questions which should be addressed in the evaluation process. Currie and Irani (1999) pose the important question as to how the organisations make sure that the vendor is offering a good service at the time that there is no longer the internal (in-house) IT capabilities and skills to conduct IS/IT evaluation activities.

Finally Kern (1997) argues that the outcomes that come from the outsourcing deals can be characterised by commitment and trust, satisfaction and expectation, co-operation and conflict, and power and dependency. Kern further notes that commitment and trust are 'interdependent', as greater commitment leads to greater trust and vice versa.

2.11.1 Customer Satisfaction

The continuing growth of IS/IT outsourcing does not necessarily imply that there exist satisfied clients/customers. Nearly 70% of the organisations which have undergone IS/IT outsourcing deals expressed dissatisfaction with one of more aspects of their IT service providers (Lacity et al., 1995). Other IT researchers have found similar results (Currie, 1995; Currie and Willcocks, 1997). Executive management in numerous organisations has been increasingly displaying signs of recognising that the disadvantages of IS/IT outsourcing outweigh the advantages (Kliem, 1999). In this regard, satisfaction can be defined as "a positive affective state resulting from the appraisal of all aspects of a firm's working relationship with another firm" (Anderson and Narus, 1999, p.58). Similarly, Kliem (1999) and Kakabadse and Kakabadse (2000) have provided a list of what they argue is why clients expressed dissatisfaction: unrealistic expectations concerning outcomes; lack of ownership clarity; unsatisfactory delivery of IT services; "uncooperative" vendor behaviour; underestimation of time and skills needed for the management of IS/IT outsourcing contracts; and cost of the service being too high, and/or the competitive advantage in the market no longer existing.

2.12 'Best Practice' Guidelines

Lacity and Willcocks (1998) concluded from their empirical research that five practices could be identified as "viable practices to help achieve sourcing objectives" as: (1) selective outsourcing, (2) joint IT/ senior executive sponsorship, (3) comparing external bids with newly prepared internal bids, (4) short-term contracts, and finally (5) detailed fee-for-service contracts.

Clark et al. (1998), based on their empirical research, suggest a short list of guidelines which should enable organisations to better adopt and enhance the decision-making process in an outsourcing arrangement, including: understand your internal IS strengths and weaknesses; become knowledgeable of the IS industry and more specifically, of IS vendors specialising in your own industry; gradually develop business relationships with one or more IS vendors; clearly understand the business objectives to be attained through an outsourcing arrangement; and recognise that change is the only thing you can confidently predict to occur in the future.

2.13 Summary

The chapter has attempted to present all the issues related to the IS/IT outsourcing phenomenon in a holistic way, as the main objective was to draw attention to the IS/IT outsourcing process and its pivotal dimensions. In essence, this chapter recognises a series of critical issues that must be carefully addressed and considered to ensure the successful implementation of IS/IT outsourcing projects. These issues have to be taken into account when organisations consider IS/IT outsourcing as IS/IT strategy.

This chapter has presented a broad overview of IS/IT outsourcing issues. This review of the literature was carried out to find out what had been concluded recently regarding IS/IT outsourcing practices and the decision-making process in the developed economies in general, and in the developing countries specifically. Many different types of literature were examined to learn about the different views that exist on the subject of this research.

The first part of the chapter examined the definitions of information systems (IS) and information technology (IT) that are used throughout the thesis. Following on from this the outsourcing background and historical developments were discussed. The terminology of IS/IT outsourcing and its different definitions were presented. A comprehensive review of IS/IT outsourcing motivations was undertaken.

A number of motivations were further discussed in terms of their importance and whether they play a major role in motivating organisations to opt for IS/IT outsourcing. The discussion included cost reduction, improving service quality and productivity, shortage of skilled human resources, gaining access to state-of-the-art technology and know-how, flexibility and control, strategic choice, improved business performance, increased number of IS/IT vendors, and faster IT application development. Risk analysis for IS/IT outsourcing issues was then examined through a focused discussion on its two main dimensions, which were hidden cost and security issues.

The different types of IS/IT outsourcing were then highlighted, followed by a discussion on the different types of IS/IT outsourced activities/functions. Later, differences between public and private sectors on IS/IT issues were investigated. Human resources outsourcing and the subject of

IT skills were discussed. It was followed by a discussion on new trends in IS/IT outsourcing, such as global outsourcing operations and application service providers.

Decision-making process was later elaborated. IS/IT outsourcing decision strategies were highlighted. The importance of IS/IT outsourcing contracts, the existence of different contract types, and the critical criteria for contract negotiations were discussed in depth. Later, vendor selection criteria and procedures, and the client/vendor relationship were considered. Finally, the chapter concludes with a detailed discussion of post-implementation evaluation where customer satisfaction played an important role.

The next chapter discusses in detail the cultural and environmental considerations and factors that play a role in the successful adoption of IS/IT outsourcing strategies.

Chapter Three

Cultural and Environmental Factors

3.1 Introduction

This chapter is the continuation of the literature review. Major differences between the developed and the developing countries have been identified in the literature based on particular characteristics that are most likely to influence the level of IT utilisation in those countries. Therefore, many issues related to the IT environment in the developing countries will be discussed. Much emphasis has been placed on studying the cultural and environmental factors, as they have been recognised as factors that have a high degree of influence on successful IT diffusion and utilisation. The literature discussed in this chapter attempts to achieve a better understanding of the complex relationship between the IT sector and the societal context. It also endeavours to identify some of the unintended consequences that can accompany the development of IT.

3.2 Cultural Factors

An increasing number of information systems and information technology (IS/IT) applications and projects are being implemented across national and cultural boundaries (Shore and Venkatachalam, 1996). During this transfer process many of these IT applications and projects encounter problems which can be attributed to the differences between the national culture of the headquarters and host organisations (Roche, 1992; Deans and Ricks, 1993). The lack of success of IT diffusion in the Gulf Cooperation Council (GCC) States can be partially attributed to social and cultural factors where an increasing number of IT failure projects in the GCC countries have been attributed mainly to the cultural factors (Yavas et al., 1992).

National culture has gained much importance in the study of organisations and management despite the many difficulties related to its conceptualisation, operationalisation, and interpretation (Tayeb, 1994). These include such fundamental issues as what it is (Armstrong, 1996), and

whether all members of a nation can be assumed to share a single dominant viewpoint (Very et al., 1996).

The concept of culture originated from the field of anthropology (Barnden and Lo, 1997). Anthropology is a study of human beings from biological, social, and humanistic perspectives. Kroeber and Kluckhohn (1952) have found one hundred and sixty-four definitions of culture and have put them into seven categories based on the main emphasises of each definition. Each of the emphases would stress a different perspective of culture depending on the situation and the problem being addressed (Hisako, 1988). The terms cultural, societal, and national culture are used here interchangeably in referring to national culture.

Defining culture can be a difficult proposition. Many different classifications exist in relation to societal culture (Hofstede, 1984; Hofstede and Bond, 1988) and also in relation to organisational culture (Hall, 1990; Adler, 1991). For example, Robey and Rodriguez-Diaz (1996) differentiated between national culture and organisational culture, and noted the importance of both factors to IT implementation studies. They suggested, on one hand, that national culture is an important moderator of the relationship between organisational culture and the characteristics of the technology, and on the other hand, that the effectiveness of technology transfer is dependent on culture awareness. Straub et al. (1997) strongly suggest that culture is more properly termed "culture-specific beliefs" (p.12). According to Walsham (1993, p.33), culture is viewed as "shared knowledge, a system of shared meaning, and an expression of the mind's unconscious operation". According to Samli (1985, p.5) it is "the way the people live". Samli goes on to define the culture as the "sum total of values, belief, and mores (i.e., habits, customs, etc) that condition life in general and behaviour in particular". Kessing (1981) has also viewed culture as "an adaptive system where socially transmitted behaviour patterns can occur in human communities in their ecological settings". Such settings that occur in the communities would include technological, economic, and political organisations, settlement patterns, modes of social groups, religious belief, and practices.

Howard and McKim, writing in Hisako (1988), have defined culture in another way: "the customary manner in which human groups learn to organise their behaviour and thoughts in

relation to their environment". There are three principal aspects of culture which they refer to: behavioural, perceptual and material.

At the same time, Hofstede (1980) contends that national culture is an important issue in management theory, and indeed national culture has been identified as an important variable in many global studies. Hall and Hall (1990) introduced four dimensions of national culture, and these were used in global IS research. These were context, space, time, and information flow.

Hofstede (1991, p.5) argues that the meanings of the word 'culture' are rooted in the Latin meaning for culture, "which refers to the tilling of the soil". Hofstede recognises culture in a narrow sense, e.g., when it is referred to as 'civilisation', and he sometimes calls it "culture one". He calls culture "culture two" when the word is used in a 'broader' sense, and when it is imagined as "mental software", borrowing a metaphor from computer technology. Hofstede (1984) furthermore defined "culture two" as: "the collective programming of the mind which distinguishes the members of one human group from another". He, in fact, used personality as a way to explain the cultural concepts. "Culture determines the identity of a human group in the same way as personality determines the identity of an individual". In this case, culture and personality are interlinked to form psychological anthropology, such that some of the features of culture can also be measured by personality tests (Hofstede, 1984).

Based on a questionnaire survey involving more than 120,000 employees and managers in 64 national subsidiaries of the IBM corporation, Hofstede proposes a conceptual model of national culture that can be used to predict "the way society operates, including their management processes and the kind of theories applicable to their management" (Hofstede, 1993, p.89). Hofstede's cultural profile identifies five dimensions by which national cultures differ. These are: individualism-collectivism, power distance, time orientation, masculinity-femininity, and uncertainty avoidance. Other studies have confirmed the validity of these dimensions and employed them to account for empirical observation (see, for example, Shackleton and Ali, 1990; Straub, 1994; Tan et al., 1998).

Trompenaars (1993, p.23) explains culture as that which causes one society or community of individual people to act collectively in a way that is distinct from another society or community.

Moreover, Trompenaars (1993. p.3) argues that the essence of culture cannot be viewed through its surface appearance.

Understanding culture is 'a crucial issue' for successful management of IT and also the study of culture is very complex. As noted by Straub (1994), cultural factors seem to affect IT diffusion. Png et al. (2001) argue that the culture's impact on IT adoption is poorly understood due to a lack of research. Culture may impede implementation efforts because of differences in the way IS (including computer-based IS) are interpreted and given meaning. Some of the difficulties pertain to the technical matters, but many can be traced to the social context of implementation.

Societal culture is an important element in implementation success (Janczewski, 1992). For example, Janczewski (1992) suggests that cultural differences found in African countries require that IS/IT systems be modified to suit the needs of the host organisations in that country. Lind (1991) argued that computer applications are culturally-bound, as the national culture has a direct impact on implementation failure. Moreover, lack of consideration of national cultural issues is likely to increase IT project failure risk and lead to ineffective utilisation of IT (Janczewski, 1992; Watson et al., 1994). Martinsons and Revenaugh (1996) proposed a number of ways though which the dimensions of national culture might affect the planning and implementation of IT applications. Shore and Venkatachalam (1995) argued that analysis and design of software should be sensitive to differences in power distance and uncertainty avoidance. In a study involving three national cultures (Singapore, the Netherlands, and Finland), Keil et al. (2000) reported that uncertainty avoidance affected decision making during software project management. Together, these studies suggest that dimensions of national culture can affect the implementation of IT applications. Beyond the use and implementation of IT applications, Burn et al. (1997) suggested that the information society as a whole might partly be shaped by national culture.

Cultural norms may precipitate user resistance towards a system (Goodman and Green, 1992). For instance, in many cultures information is still equated with power, which restricts personnel willingness to share information and data through database systems. Another cultural factor that may create resistance towards IT is preference for personal, rather than impersonal contact. This may create a significant barrier for meditated communications applications such as electronic mail, electronic data interchange, and teleconferencing, as they appear impersonal (Azad et al., 1998).

Consequently, culture is a system of shared meaning. It is the way people interact with each other, the way in which people solve their problems, and the way the people live. In each developing and developed nation of the world, people have a unique culture of their own, in which they take pride, and also which provides a clear guidance to enlighten outsiders about their life course.

In sum, it is not always recognised that existing IT systems, products and services developed in one culture already have their own culture deeply embedded in them. As Shore and Venkatachalam (1994) stated, we need to "consider the culture within which the application was developed and the culture into which the application will be introduced".

3.2.1 Cross-Cultural Research Issues

As more business is being conducted internationally and corporations establish themselves globally, the impact of cross-cultural aspects becomes an important research issue.

At the international level, we are dealing with interaction of nations – in other words, cross-national issues. The need to conduct cross-cultural research is perhaps even more important in the relatively new and quickly changing information systems (IS) field (Hunter and Beck, 1999).

In a large survey of IS executives, more than half of the respondents felt that success in global IT was key to their firm's future (Ives and Jarvenpaa, 1991). In increasing their operations in the international context, organisations must be able to exploit the power of IT to communicate among widespread locations of activities both within and across countries. Ein-Dor et al. (1993) discussed the effects of national culture on the implementation of international IT applications. Thus, it is necessary for the managers of these organisations to learn as much as they can about the cross-cultural adoption and use of IT (Kumar and Bjorn-Anderson 1990). Research into international information systems (IIS) is still a minority area in IS/IT research and there is little to use as a theoretical framework for researching them (Lehmann, 2001). Lai (2001) argues that in the MIS discipline, not much empirical work has been devoted to investigate the problems associated with the transfer and management of IS/IT technology.

3.2.2 Communications

Cross-communication among the different parties can be considered as a part of the cultural attitudes, behaviours and norms. Rimington (1995) argues that "effective ....communication" can be considered as one of the important foundations for project success. Rimington, moreover, remarks that according to some studies, "effective communication" can be achieved through understanding cross-cultural differences – this to indicate the importance of considering the way through which effective communication can take place (Kirkham, 1994).

Edmonds et al., (1990) emphasise that 'effective communication' is one of the professional abilities that 'actors' need to consider when they deal with each other, especially when the vendor's systems development team comes from 'outside' the environment of the client. This can place considerable demands on the ability to communicate effectively.

There are two major ways in which communication serves IT actors. One involves communication as an important means used by the IT transferrer in communicating the know-how (knowledge) to the transferee, which is necessary to operate the transferred IT. The second way, which concerns us more here, in which communication serves IT actors, is when it represents an important and effective means of exchanging information through which the requirements are communicated. According to COSTED (1980, p.233) such communication represents a serious problem facing, for example, the developing countries:

"The multiplicity of languages, widespread illiteracy, differing social structures and traditional values offer challenges not commonly met with in the developed counties."

Therefore, effective communication between actors (vendors, users, proposers, purchasers, developers, etc.) can play a major role in IT project success (Odedra, 1990). Because of the importance of the communication, it can therefore be said that effective communication across cultures is the first requirement for the success of any international IT project.

3.2.3 Arab Culture

The Arab society is perhaps one of the "more complex cultural and social systems in the world" (Straub et al., 1997). The Arab culture is tradition-oriented. Also, the Arab attitude toward time is complex (Straub et al., 1997). For example, Malaika (1993) compared Westerners working in Saudi Arabia with the Saudi nationals, and investigated the difference in their perception of time value and time management. He argues that Saudi management style has a personal orientation. Saudi managers prefer the practice of personal approach and the development of strong personal relations with their employees. Other researchers discovered that management style and organisational structure in the GCC are similar to the other Arab countries and have the following characteristics

- Overlapping in employment, financial policies, and administrative regulations;
- Centralisation;
- Lack of delegation of authority;
- Overstaffing;
- Immateriality of time: a low value placed on time created in an environment where many public employees did not work hard and were not punctual;
- Lack of effective communications;
- Lack of qualified staff; this has caused frequent recruiting of other nationalities (expatriates);
- Lack of accountability and control systems (especially for the top officials); and
- Insufficient level of planning.

(Malaika, 1987; Abdul-Gader and Al-Bureay, 1993 Attiyah, 1993; Al-Rasheed, 1994; Al-Sudairy, 1994; Al-Arfaj, 1996; Abdul-Gader, 1997):

3.2.4 Definition of Culture Used in this Research

As part of this research is concerned with the role of cross-cultural communication of IS/IT outsourcing projects, the definition of culture used throughout this research is based on Trompenaars (1993a) work. Culture in the context of this research is therefore concerned with the organisation of meaning. What meaning do actors give to the various facets of IS/IT outsourcing

projects? For example, the meaning ascribed to a 'contract of supply' has a different meaning to the vendor, and a different meaning to the client organisation. Part of this research is about exposing and identifying these differences and attempting to provide 'guidelines' to improve cross-cultural communications in the context of IS/IT outsourcing projects.

3.3 Environmental Factors

Teo et al. (1998) define environmental factors as " those changes in the business environment that create threats as well as opportunities for an organisation and are usually beyond the control of management" (p. 100). Another definition is provided by Duncan (1972): "the external environment is the set of relevant physical and social factors outside the boundary of an organisation that are taken into consideration during organisational decision making". Farmer and Richman (1970) identified four categories of environmental constraints, educational, sociological-cultural, legal-political, and economic. Skinner (1964) presented a model which is slightly different from Farmer and Richman's. Skinner identified four interacting systems. They are technological, cultural, political, and economic. DeLone and McLean (1992) stressed the importance of considering organisational and environmental factors. Ives et al. (1980) presented environmental variables that "define the resources and constraints" of the IS function. Ranganathan and Sethi (2000) divided the external environment into two broad constituents, namely external business environment and external IT environment. The former consists of competitors, suppliers, customers, regulatory bodies, and other industry related components. The latter refers to the hardware, software, telecommunications, and specialised human IT resources that are paramount for an organisation. The external IT environment has been characterised by using terms like "high velocity", "fast-changing", "rapid", "clock-speed". Badri et al. (2000) place much emphasis on what they call "neglected environment variables in the developing countries" (p.155). They are government laws and regulations and political considerations.

3.3.1 Environmental Characteristics

Environmental variables are factors external to an organisation that can influence and manipulate internal behaviour (Kennedy, 1983). Generally, it has been found that environmental uncertainty, competition, heterogeneity, inter-firm dependence, and resource concentration are major attributes.

The influence of uncertainty and competition were found to be consistently significant in studies of implementation of new technologies (Kimberly and Evanisko, 1981).

Environmental factors can both contribute to or hinder the successful implementation of IT projects in developing countries (Enns and Huff, 1999). A number of studies follow the success factor approach in relating IS management to organisational contexts such as size, IS development approach, user participation, management structures, styles, etc. Other studies relate the dependence of IS management on external factors such as shortage of skilled manpower, government policies, infrastructure availability, socio-cultural aspects, etc.

Studying the political and economical environment in any developing country is also considered to be an important step towards the full understanding and comprehension of the environmental factors (Enns and Huff, 1999). For example, looking at different political and economical factors (e.g., the democratisation process, privatisation process, political parties, economic situation, currency value, bureaucracy, and so on). Others have suggested that geography and climate can be important considerations as well (e.g., Janczewski, 1992; Ein-Dor et al., 1993).

At the same time, the economic environment of a developing country has a clear impact on the short and long-term success of IS/IT implementation (Enns and Huff, 1999). The economy determines such things as the availability of funds to purchase hardware, software, telecommunications equipment, and technical support (Dhir, 1992). The economy also impacts on the demands, in terms of a sustainable customer base, for new IT products and services (Dhir, 1992). However, many developing nations do not have adequate financial resources or means to invest heavily in the IS/IT infrastructure or simply to improve their telecommunications infrastructure (Goodman, 1991; Frempong, 1996). The governments in the developing countries have been encouraged to invest in IT infrastructure which would contribute to the economic growth and prosperity of the nation (Daser, 1994).

3.3.1.1 Technological Factor

This factor means the technological sophistication that a developing nation may possess. Some writers refer to it as the IT infrastructure of the country. Roche (1992) stressed the importance of

the existence of adequate telecommunications infrastructure when multinational companies implement IT projects in various parts of the world, especially in the developing nations. He found that inadequate host country infrastructure created serious problems for implementers.

3.3.1.2 Educational Factor

Some of information technology transfer and diffusion can take place indirectly through the education and training of host country employees. Training of local personnel on-site or overseas by the multinationals is a major way of technology transfer (Castillo, 1992). The development of IT human resources is a crucial issue (Trauth, 1996). There should be co-ordination between the employment objectives of the policy makers and the education strategic plans of the universities and the technical colleges. Another part of the educational issue is the need to make it widely available, because particular IT skills are required. Trauth (1996) notes the importance of having the "societal infrastructure" in place to support the people engaged in the IT sector. This infrastructure includes education, telecommunications, transportation and sufficient housing.

3.3.1.3 National IT Policy

Straub et al. (1997) define this as "specific technology policies that guide the development of information systems in a specific country together with the existing structure of computing and communications capabilities and the ability of the population to operate and utilise these capabilities" (p. 13). Countries differ on a number of factors that would affect the costs and benefits of IT adoption. One factor is national policy.

Moreover, national IT policy should be one that recognises the primacy of the national development objectives as well as the need for appropriate IT applications that embody as an imperative the adequate understanding of the national, regional and organisational context in which such activities are attempted (COMNET-IT, 1995).

Political factors may also seriously impede efforts to realise the benefits of IT. For instance, governmental controls aimed at controlling transfer/ proliferation of communications may

undermine the viability of telecommunication applications. Further, most, if not all, organisations in the developing countries import all their IT needs (e.g. hardware, software, communication equipment) from the developed industries, and two problems have occurred. On one hand, the necessary cash flow for purchasing the required IT systems may not be available. On the other hand, economic embargoes may be imposed (e.g. Iran, Libya) which may simply render the needed IT technology unavailable.

The initiatives taken by the governments of developing countries to promote IT industries vary widely. In some developing countries, the governments offer substantial financial incentives for multinational IT companies to locate part of their operations in the developing countries (Mundy, 1996). Government funded initiatives have led to the creation of higher education institutions which provide the training in IT necessary to produce a highly skilled work force.

In Saudi Arabia, Abdul-Gader and Alangari (1994) reported that government practices and polices were among the top barriers to IT assimilation. Organisations viewing government policies as restrictive are expected to have less computerisation (Dasgupta et al., 1999), and devote less attention to strategic IT-related activities such as IT planning (Palvia et al., 1992). Therefore, understanding IT management issues such as IT planning in a global setting would require examining government policies in the local country (Dasgupta et al., 1999).

3.3.1.4 National Information Infrastructure (NII)

IT infrastructure is the complex set of IT resources which provide a technological foundation for any country. It usually includes platform hardware and software, network and telecommunications technology. The lack of a good nation-wide infrastructure is a major problem for developing countries. Designing and implementing a National Information Infrastructure (NII) has become a high priority for many leading industrialized nations (Blake and Tiedrich, 1994; Cats-Baril and Jelassi, 1994). An NII is of strategic importance because it is potentially a very significant contributor to economic wealth in the emerging age of electronic commerce (Garfield and Watson, 1998). Implementing an NII requires political leaders to make key decisions on its structure and management. In the meantime, infrastructure can have a profound effect on any country's prosperity. As the world is moving towards the new economic era of information and knowledge,

the ability to communicate and transfer information will become a 'cornerstone' to a successful national economy (Garfield and Watson, 1998). The cause of IT project failure in countries such as the Third World includes lack of adequate information infrastructure, lack of adequate communication mechanism, and lack of trained personnel, in addition to some problems related to the physical environment, systems maintenance and managing change. Telecommunications are also a serious infrastructure problem (Avgerou, 1993) Furthermore, Madden and Savage (1998, p.174) suggest that "investment in telecommunications infrastructure has the potential to improve national productivity and economic growth". The most crucial skills needed to organise IT infrastructure are skills relating to the planning, technical design, implementation and management of IT related systems (Avgerou, 1993).

The concept and perceived value of NII arises from the need for "virtual integration" within and across national boundaries (Meso and Duncan, 2000). A NII that allows members of the various sectors to share information and related resources may increase efficiencies and intellectual activities that lead to economic productivity (Meso and Duncan, 2000). Sharing resources reduces the cost of affected projects and IT services, which in turn increases the feasibility of new endeavours.

3.3.1.5 Intra-organisational Factors

As is the case in the developed economies, the proper alignment of organisational business strategy and its IT strategy affects the eventual success of IT implementations in organisations in developing countries (King and Sethi, 1993). Robey and Rodriguez-Diaz (1996) stressed that organisational culture also plays an important role in successful or unsuccessful implementations. Studies of implementation should recognise that technology has different social meanings in different cultural settings (e.g., Barley, 1986). Robey and Rodriguez-Diaz (1996), for example, found that a major reason for successful implementation in the Panamanian case was due to organisational culture. The new system was viewed positively because it was compatible with the Panamanian subsidiary's business culture.

3.3.1.6 Inter-Organisational Factors

Computer-based systems operating between two or more co-operating organisations as part of their business relationship are generally referred to as inter-organisational systems (Cash, 1985; Barrett, 1986; Kuula, 1995). Inter-organisational systems affect organisations at many levels (Sumoi, 1994) and these systems go beyond mere electronic data interconnection and deal with people, policies, and procedures (Konsynski, 1992), as well as power relationships (Webster, 1995).

Organisations in developing countries often seek partners to help them to accomplish their IT goals and objectives. In these cases, it is imperative that the partners are appropriate in terms of their goals and objectives, and what they "bring on the table" (Enns and Huff, 1999). In addition, the resources that partners provide need to appropriate. Roche (1992) suggested that access to adequate vendor support was an important consideration. Trust among partners is also seen as a critical success factor (Enns and Huff, 1999). Robey and Rodriguez-Diaz (1996) found that trust among groups played an important role in the successful implementation of an IT system in Panama.

Furthermore, the design and management of the partnership project is critical (Enns and Huff, 1999). The responsibilities of each of the partners should be clarified and each committed to the project in order to achieve effective project management. At the same time, much attention should be paid to the other organisational factors, such as the organisation's size, market size, and industry type.

3.4 Technology Transfer

Lind (1991, p.8) defined technology transfer as a process that not only includes "skills necessary to handle the equipment, but also the conceptual thinking that surrounds and accompanies the technology". At the same time, Lind believes that technology transfer is also a culture transfer from the industrialised nations to the recipient countries.

When the technology transfer takes place, it imposes a continuous interaction both with the physical equipment and the software that permits it to be utilised. In addition, it is also a transfer of human-computer interaction (Johnson, 1992). The interaction, according to Benyon and Murray (cited in Maddix, 1990, p. 9-10), "includes all aspects of the environment such as the working place, office layout, provision of help and guidance, and so on".

On the other hand, Carpentier (1989, p.6) has defined technology transfer as "the exchange of technical knowledge or know-how [that] may be embodied in technical equipment (i.e. machines), in people (i.e. engineers, scientists, technicians), or in publications (including a patent)". Carpentier's definition is industry-oriented. Unlike many other authors, Carpentier did not give any consideration to the overall infrastructure required for the technology transfer. At the same time, Carpentier had dealt with a high level way of transmission that accordingly requires high level elements (i.e. engineers, scientists and technicians). Finally, McDerment (1989, p.111-114) has emphasised the importance of the factors that Carpentier (1989) has failed to recognise, such as a skilled labour force and communication infrastructure, even for the new-technology transfer, though it may take place within the industrial countries. McDerment, furthermore, highlighted education, which Carpentier did not consider, besides training. Training alone is not enough, as education alone is not enough either (McDerment, 1989).

Odedra (1990, p.15) claims that technology transfer "can be viewed as a process of transferring knowledge from a group of people in one country to those of another".

And finally, it should be born in mind that people vary in their knowledge, education and training, and hence in their receptiveness to technology (Odedra, 1990). To transfer technology therefore does not necessarily mean to guarantee its success for the recipient.

3.4.1 Information Technology Transfer (ITT)

Information technology transfer (ITT) may be defined as the movement of information technology from creators to users (Cunningham and Sarayrah, 1994). IT transfer, it can be argued, is the process of transferring IT technology, from (usually) an industrial nation to another industrial or developing nation in a modified form, "needed to support information systems" (French, 1996,

p.2). In addition, according to Samli (1985, p.8), IT transfer is the transfer of " all the hardware, software, and other supporting activity" to handle information systems. IT transfer, according to Odedra (1990, p.16), is the transfer of: "knowledge (know-how)". Odedra, unlike many authors, focused on the 'know-how' as the main issue in the process. Other authors, Kumar and Steinmann (1991, p. 68), have defined IT transfer as "the transfer of tangible and non-tangible goods (i.e. technological hardware, technical and management know-how". Mefford and Bruun (1998) stress the importance that the developing countries should not only focus exclusively on obtaining "hard" technology as this approach neglects the 'soft' elements of technology transfer, the management systems and organisational structure needed to make the hard technology effective.

Despite the fact that the developing countries are eager to adopt new IT technologies, the process of adoption has been very slow and the current utilisation of IT is "far below" that accomplished in the developed countries (Antonelli, 1986). Straub et al. (1997) attribute much of the "ITT problematic" to the what they call "cultural-bias" in favour of their own social and cultural system, as the industrialised nations produce the IT technology. Research suggests that attention should be paid to the social and economic situation of the host country in order for technology transfer to be useful and applicable (Eres, 1931). Others have expressed different cautions with respect to the issue of technology transfer. Hasan and Ditsa (1997) pointed out that systems that have been developed by foreign expertise are often unmaintainable once the expatriates leave. There is, therefore, an urgent need for appropriate planning tools and means by which to consider the national variables and cultural differences of the developing countries (Lind, 1991). Dahlman et al. (1987) and Davies (1997) asserted the need to guard against the wholesale adoption of Western management techniques, which may not pay close attention to the local cultural norms and practice. Moreover, IT transfer does not only involve the 'hard' forms of technology but also the knowledge and other 'soft' aspects of technology. These 'soft' transfer issues which include the programs, covenants, rules of conduct and use, and the know-how, are the major challenges of the transfer of innovative IT to the host country (Lai, 2001).

Consequently, IT transfer includes all that can be transferred from the industrial nations which is related to the IT environment or industry. It is mainly composed of four dimensions. They are verbal, actual, physical, and tacitly approved knowledge transmissions. Thus, it is pivotal to consider that the culture of the vendor is deeply embedded in all phases of the offering. The client

(i.e. IT purchaser) may either accept this, misinterpret, or reject some aspects of it. Thus, confusion across cultural boundaries can arise from the four above mentioned dimensions of the process of the IT transfer.

One final note is to make that the relationship between culture and ITT is not very obvious. Therefore a distinction must be made between culture and IT. Information technology is adopted to accelerate development but is "cultural wealth" that can help any society to build an enabling environment for transformation and development (Okpaku, 1994).

3.5 Developing Countries

3.5.1 Background

A developing country is generally defined as one that has a per capita GNP less than $2000 (Ball and McCulloh (1990). In addition to having a relatively low GNP per capita, developing countries are characterised by a dualism of modern and unsophisticated technology, a high rate of illiteracy, low saving rates, and inadequate banking facilities (Ball and McCulloh, 1990; Straub et al., 1997). In technological terms, the developing countries are those which are going to receive technology from the developed (industrial) nations (Samli, 1985). Developing countries or less developed nations, according to the United Nations Committee on Science and Technology in Developing Countries, is a classification that is used to refer to almost to 120 nations of the world, including Kuwait (COSTED, 1980, p.222). Many of the developing countries are generally poor and over populated. They have, it can be argued, inappropriate administration and political systems, ineffective or unattractive educational systems, a high rate of illiteracy, inflating economies and ill-initiated financial systems. This is besides a high rate of unemployment, low per capita income, and income distribution characterised by variation and inconsistency. Quantitatively and qualitatively, the developing countries are different in terms of capital, human resources, and populations. However, even in the context of the developing countries, there are similarities and differences between countries depending on many factors, such as the size of the populations, the geographic location and GNP. Kuwait, as an example of a developing nation, has characteristics including a very small population, a strong financial position as a major oil exporter, and a willingness to absorb and capture state-of-the-art technology.

In sum, the developing world consists of 75% of the total world population. In this manner, the importance of the continuing supply of advanced IT technology to the developing countries cannot be overemphasised, and hence, developing countries are too important to ignore.

3.5.2 IT Research in Developing Countries

A number of IT researchers have addressed various aspects of IS/IT issues in the developing countries. Kamel (1995) discusses the experience of Egypt with IT as a tool for social-economic and cultural development. Hassan (1998) proposes a framework for IT industry development in Pakistan. Harindaranath and Liebenau (1995) discuss the IT issues faced by the Indian software industry, as it copes with a changing state policy of increasing liberalisation of the economy. Roche (1992) proposes that developing nations should provide more incentives to multinational companies in order to attract corresponding transfer of technology. Similarly, Lally (1994) and Lehmann (1994) also presented models and frameworks for IT strategic planning in developing countries. Enns and Huff (1999) discuss the IT implementation issues in developing countries, especially for Internet adoption. Straub et al. (1997) stressed the importance of information technology transfer to developing countries and tested the cultural influence where a new model was presented. The challenges facing the organisations in developing countries while attempting to deploy telecommunications networks (e.g. lack of resources, lack of in-country expertise, and non-supportive regulatory environments, and so on) were thoroughly identified and discussed by Roche and Blaine (1996). Yavas et al. (1992) discussed the adoption of IT in Saudi Arabia. Kamel (1995) highlighted the importance of policy formulation in the developing countries. Lehmann (1994) argues for an IT management framework for the developing countries. Azad et al. (1998) proposed a framework for realising the potential of IT in developing countries, where they offer guidelines for planning, implementing, and expanding the role of IT technology in developing countries.

Developing countries employ IT in the public as well as in the private sector (Rammamurthi, 1985). In the public sector, for example, Malaysia developed a system called SETIA, a decision support system, that assists government agencies in planning, registering and controlling development projects in preparing budget allocations, and in reporting physical and financial

progress of projects (Han and Render, 1989). Egypt, also, has developed a "Debt Management Project" (Goodman and Green, 1992). Jordan has been using an information reporting system called the "Geographical Information System (GIS)" to record over 20,000 geographical antiquity sites (Goodman and Green, 1992).

Danowitz et al. (1995) note that there are lower levels of IT use in the Middle East than might be expected from observations of other comparative developing parts of the world such as Eastern Europe. Despite the fact that Egypt has a very prestigious university and both Turkey and Jordan have world renowned government scientific research organisations, their use of IT is very out of date. The IT used and taught in these countries is mostly decades old. In July 1995, the Middle East accounted for only 0.016% of all registered Internet hosts worldwide, with Egypt and Turkey having the majority of connections (and Jordan coming on-line in March 1996).

3.5.3 IT Diffusion in Developing Countries

IT diffusion experiences differ from country to country and culture to culture (Ein-Dor et al., 1993). Hanna et al. (1995) identified five external factors which affect IT diffusion: the shortage of skilled manpower, social-economic forces, culture, infrastructure availability, and government policies.

It has been acknowledged that establishing a business in a developing country can be both risky and rewarding (Chen and Lin, 1998). Various difficulties have been reported in the literature coupled with many cultural and societal obstacles that become primary impediments to IT diffusion in the developing countries. The developing countries must adequately address these difficulties which include:

3.5.3.1 Legal Uncertainty

It is a major concern that many developing countries have a primitive legal system, as such shortcomings have affected the process of outsourcing deals. A comprehensive legal system is seen as the 'judge' to cope with major disputes that arise between companies and governments, or between organisations and vendors. The serious shortage in the local regulations is especially

discouraging for Western firms trying to establish IT projects in the developing countries (Chen and Lin, 1998).

3.5.3.2 Language/Communications Barriers

Language has long been accepted as a potential barrier between peoples of different countries. Many countries, such as Canada and Kuwait, require that food products be labelled in the official languages of the country (e.g. both English and French in Canada, and Arabic in Kuwait). Language is considered to be a symbol. According to Berger and Luckman (1966), "language can typify and stabilise experience and integrate those experience into a meaningful whole" (Pettigrew, 1979). Many researchers have argued that language plays a critical role in the construction of the social world including socio-linguists, sociologists and philosophers (Barnden and Lo, 1997). They all agree that when language is expressed in a certain way, it can emphasise its meaning to other people (Alvesson and Berg, 1992).

Moreover, the language problem has been recognised as an important factor in international collaboration (Chen and Lin, 1998). In fact, if the official language is not English, as is the case in most of the developing countries, the cultural differences result in a great negative impact in bidding on foreign contracts. At the same time, the language barrier can be exacerbated by the lack of interpreters who are capable of translating both technical and more colloquial language. Yet, symbols are not easily understood by an outsider (Barnden and Lo, 1997). Unless we learn their language and understand their underlying meaning, the organisational events and actions would have no meaning to us (Evred, 1983). Effective and efficient communication is essential in global outsourcing engagements (Chen and Lin, 1998), therefore there is a real need in the developing countries for more regular English training related to the IS/IT field which could be a critical factor in drafting contracts.

3.5.3.3 Protecting Intellectual Property Rights

Fundamental intellectual property rights in developing countries are relatively weak (Chen and Lin, 1998). Intellectual property protection such as trademarks and copyright is a necessity, especially for outsourcing deals In response to the sharp criticisms from the developed industries,

many developing countries have attempted to enforce the legal systems against piracy. Yet, the level of crackdown on distributions of pirated IT products has not been very successful. An agreement on the responsibility for protecting intellectual property in the outsourcing process is needed (Chen and Lin, 1998).

3.5.4 Successful Project Implementation

Success is an often-used dependent variable in global IT implementation studies (e.g., Ramanujan and Lou, 1997; Palvia, 1998). This variable has been defined in different ways, including:

- Met partners' objectives (Parent and Enns, 1998)
- Use of the systems by subsidiaries (King and Sethi, 1993)
- Achievement of global economies of scale (Roche, 1992)
- Effectiveness of technology transfer (Robey and Rodriguez-Diaz, 1996)
- Customers demand the new service that IT implementation provides (Dhir, 1992).

3.5.5 Gulf Co-operation Council (GCC)

The rationale for focusing on IT management in the Gulf Cooperation Council (GCC) is twofold. First, the GCC countries face unique problems (e.g. heavy reliance on expatriate labour, vulnerability of their economy to changes in the international market and demand for oil, political instability in the region, and the absence of popular participation in government). Second, the GCC has witnessed rapid social and economic changes. As the oil revenues increased, the Gulf states have invested in a vast array of infrastructure projects. The GCC countries are more like developed nations in terms of their capital resources and ambitious health, education, and other public service programmes. However, they differ from the developed countries in the absence of long-standing traditions and experience with regards to such programs. In addition, they suffer skilled manpower shortages in the areas of management and technology. This is also combined with the relatively low density of the native population in these countries. All have led to heavy reliance on expatriate labour. Fortunately, enabling resources have been available to facilitate and speed the acquisition of much needed skills (Nabali, 1991). Although the population of the GCC shares a similar cultural background, the dramatic increase in oil prices and subsequent change in

societal structure have strengthened national differences and created a different pattern of thinking and behaviour. A recent study by Alshawaf (2001) revealed the challenge facing these GCC countries is not so much a lack of IT resources, but how to manage, deploy, and leverage these resources to get optimal utilisation.

Kassem and Habib (1989) investigated the management style in some 18 organisations in the GCC countries, and found them to have:

1) Over-centralisation in their decision-making;
2) Lack of business specialisation and focus;
3) Lack of co-ordination;
4) Lack of formal procedures and formal structure;
5) Extensive use of committees; and
6) Personal preferences and judgements in their organisational decisions.

3.6 Kuwait

The State of Kuwait lies on the north-east shore of the Arabian Peninsula, bordered in the east by the Arabian Gulf, in the north by Iraq, and in the south and west by Saudi Arabia. Kuwait is an oil-rich country, which is fairly homogeneous in terms of its level of urbanisation and infrastructure development. About 98% of the population is living in urban areas with easy access to paved roads, water and electricity supply, sewage facilities, schools, supermarkets, and health facilities. Moreover, the government has secured infrastructure for the basic utilities, such as, power stations, water desalination, means of transport and communication, ports, and so on.

Kuwait is considered to be a developing country with a stable political system, a relatively liberal economic policy, and an increasingly significant role in the global economy. The Kuwaiti government has urged both public and private sectors, by different means, to try to build a network of institutions and information resources to enhance the utilisation of modern technology. The government also offered appropriate incentives through the economic policy framework. Indeed, Information Management has been the target of all sectors in an attempt to provide the right

information, at the right time, in the right form. No studies of IS/IT outsourcing have yet been found for Kuwait.

3.6.1 IS/IT Status in Kuwait

The literature review indicates that research concerning Kuwait in the area of IS is limited. Very little research has been undertaken on the status of Information Systems (IS) in Kuwait, and Kuwait itself has been under-researched in the IS/IT literature (Alshawaf, 2001).

A few studies have been found. Ibrahim (1985) surveyed the use of IT in Kuwaiti organisations. Alshawaf (2001) researched the critical issues of information systems management in Kuwait. Abdul-Gader (1997) examined the IS strategies for multinational companies in GCC countries. Aladwani (2001) discussed the on-line banking issues in the Kuwaiti financial institutions.

The vast majority of existing research into IS/IT outsourcing has been primarily conducted in the developed nations, with most studies focusing on organisations in the USA or Europe (see, for example, Loh and Venkatraman, 1992 a, b; Lacity and Hirschheim, 1993, 1995; Cronk and Sharp, 1995; Cross, 1995; Jurison, 1995; Mclellan et al., 1995; Palvia, 1995; Apte et al., 1997; Currie and Willcocks, 1998).

As noted earlier, IS/IT outsourcing has received "little academic attention in the non-western context" (Lee and Kim, 1997, p. 1). The literature review has found that there is very little research with regard to information system outsourcing strategies in developing nations, such as Kuwait.

The development of IS/IT is unbalanced. The imbalances are apparent, mainly in that domestic companies are lagging behind the foreign firms, which have dominated the developments since the 1980's. Most IT development in Kuwait is contributed by foreign firms.

3.6.2 Software/ Hardware

Kuwait is an importer of all kinds of software and hardware components. Because of its large purchasing power, the State is the main domestic consumer of emerging software. However, the software industry has been plagued by software piracy. More stringent regulations and policies are needed to discourage international piracy, to encourage software development and to raise software standards.

3.6.3 IS/IT Services

The IS/IT services are growing slowly, but are expected to reach a faster growth rate in the next couple of years. All different aspects of IS/IT are being developed and the range of IT services is on the increase from data entry to system acquisition to system maintenance.

3.6.4 IT Professionals

IT professionals are greatly lacking in Kuwait. In fact, lack of qualified personnel is one of the biggest obstacles to IT development in Kuwait. IT education and training must be improved. The country needs to invest further in IT training and education in schools and other institutions, besides universities.

3.6.5 Economy

The economic environment of a developing nation has a clear impact on the short and long-term success of IT implementation (Enns and Huff, 1999). Kuwait is a rich country with strong oil production, therefore the economy base is quite strong and demand for IT technology is increasing at unprecedented rates in Kuwait.

3.6.6 Government Support

Utilisation of IS/IT in government will help the perception of IT in Kuwait. Also, the government needs to show its support for IT by providing incentives to organisations that are willing to adopt

IS/IT. At the same time, much emphasis should be given to IS/IT planning. Jain (1997) shows how lack of political and governmental support prevents the full benefits of computerisation being available.

3.6.7 IT Personnel Issues

Personnel issues relate to the people who will provide, manage, and generate new information, and those who help others doing the same. One of the key factors which determines the success or failure of any IT project is the availability of appropriately trained personnel who are involved in different aspects of using IT equipment. Unfortunately, this area of IS/IT human resources is often overlooked, or not given the necessary attention, and as a result, projects are less than successful (Mundy, 1996). Training the end-users of IT-based systems is an important aspect of the IT innovation process (Mundy, 1996). Also, training for technical support personnel in the developing countries is often overlooked. Without such an IT workforce, the successful installation and maintenance of IT equipment cannot occur.

The importance of IT is increasing and becoming a more critical issue inside Kuwaiti organisations. Shortage of a well-qualified indigenous IT workforce is being widely felt. This has led a large number of organisations to search for other external sources, and subsequently rely heavily on a diverse expatriate IT manpower, which is characterised by instability and a high leakage rate. In this regard, many IT senior authorities put partial blame on the higher Kuwaiti academic institutions which in their opinion are somewhat dated, and also on insufficient efforts being undertaken by the government to streamline IS/IT educational programmes with the current explosive rate of advancement in IS/IT areas (Alshawaf, 2001). A widespread education campaign is greatly needed to improve the perception of IS. Government needs to stimulate in-house, on-the-job- training, which offers an important route for IT skills formulation (Heeks, 1996).

3.6.8 IT Infrastructure

IT infrastructure is the combination of technical and human resources used to build, operate, and maintain information systems. Internet development and network expansion depend on IT infrastructure. Global businesses depend on telecommunications for effective day-to-day

operations. Telecommunications provide these businesses with voice and data connectivity across locations spanning large distances. But telecommunications is possible only with the underlying IT infrastructure that transports the voice and data. Kuwait has overall a 'good' IT infrastructure. The government has in recent years invested 'heavily' in establishing a sound communication base to facilitate the IT developments.

3.6.9 Legislation and Information Intellectual Property Protection

Legislation here means regulations and policies. This is a special issue in the Kuwaiti business context. Until 1999, there were no official intellectual property protection laws and regulations in Kuwait. Software piracy is widespread among individuals, as well as to a lesser extent inside institutions. However, the urgency of the matter, and pressure exerted by international software protection organisations, led the government in late-1999 to rush to approve and implement a comprehensive legislative bill to criminalise all types of violations of intellectual rights, including software copyright. The decree law no. 5 issued in May 1999 on intellectual property rights specifically protects computer software. According to the legislative bill, it is illegal to import, make, distribute, sell, or rent copies of copyright materials without an authorisation from the owner. After the bill was approved, the Kuwaiti government is committed to protecting the rights of the copyright owners.

3.7 Summary

The chapter has presented some important considerations of cultural and environmental factors that play a crucial role in IT implementation and diffusion, especially in the developing countries. Firstly, it looked at how understanding of cultural issues and its main component, communication, is pivotal. Research in cross-cultural issues and those specific to Arab culture were presented. Secondly, different environmental dimensions such as economic, education, technological, national IT policy and national information infrastructure were discussed. The need for proper alignment of intra and inter-organisational issues with IT was highlighted.

A discussion on technology transfer and information technology transfer was provided as outsourcing has been sometimes seen as a facilitating tool.

A detailed examination of IT research in the developing countries was presented. Problems of IT diffusion were identified in the process, such as legal uncertainty, language /communication barriers, and the issues of protecting intellectual property rights. Success factors for IT projects implementation were summarised.

The chapter concluded with a discussion on Kuwait where the data collection for this study was carried out.

The next chapter discusses the research methodology used in this study.

Chapter Four

Research Design and Methodology

4.1 Introduction

This chapter provides a methodological overview of the investigation. It discusses issues related to the research design selected, and the data collection and analysis methods used to conduct the research study. It explains the methods and procedures used in the investigation. It describes the stages of the investigation, the sources of data, and procedures used to acquire the data.

This chapter first explains why and how the triangulation approach, which integrates quantitative and qualitative methodologies, was chosen as the principal research approach for this study. It also details how this research strategy was translated into a detailed research design which directs the process of collecting, analysing, and interpreting data.

4.2 Research Definition

Nachmias and Nachmias (1996) describe the role of research as to add to what is known (the body of knowledge) by discovering new facts and relationships through a systematic process of scientific inquiry. Babbie (1989) and Nachmias and Nachmias (1996) believe that scientific research comprises two major elements, theory and empirical research. The role of research methodology, thus, is to guide the research process through a system of procedures (Nachmias and Nachmias, 1996). Gill and Johnson (1991) state that "research may be classified according to its purpose" (p.8). In regard to the philosophical perspective of research, Cavaye (1996) notes that positivism and interpretism rely on quite different assumptions about the nature of knowledge, but case study research can be used in both. There is much discussion in the literature on the role of social science through induction and deduction approaches. This link leads to two kinds of research strategies, research-then-theory and theory-then-research. The advocates of the research-then-theory strategy believe that empirical research should not be limited to improving theories through testing hypotheses, but should seek to formulate new theories (Merton, 1968; Benbasat et al., 1987; Strauss and Corbin, 1990). The advocates of theory-then-research strategy, on the other hand, adopt a hypothesis-testing approach to research whereby hypotheses are derived from the

theories being studied, building up a model for testing a number of propositions that describe relationships between its constituents and then designing an instrument to examine the model. Later, after the collection of data, the model is refined according to the results (Reynolds, 1971; Gill and Johnson, 1991).

Lakhanpal (1994) observed that, in the past, researchers attempted to use theories from single disciplines to explain the complex relationship between information technology and organisations. He suggested that a multi-disciplinary approach was necessary to gain a comprehensive understanding of the phenomenon. Lowery (1997,p.192) states that:

"Information systems research is difficult because it always involves people, technology, and the linkage and interactions between them. If we remove the technology, we are no longer studying information systems but are working in reference disciplines such as psychology, sociology, human communication, organisational behaviour, philosophy, epistemology, ethics, logic, anthropology, and theology. Similarly, if we remove the human aspects, we position ourselves in computer science, electronic engineering, communication technologies, physics, chemistry, and other technological reference disciplines."

4.3 Research Strategies

Research strategies or methods provide the means to collect data. Data can be collected from several sources using different methodologies. The data required can be classified as qualitative if it comes in word form, while it is regarded as quantitative if it comes in the form of numbers (Blaxter and Hughes, 1996).

The proper selection of quantitative and qualitative methods, and the understanding of their application to the research context are vital to the success of the research in presenting the phenomenon being studied in a scientific frame. However, the choice of either a qualitative approach or a quantitative method as the most appropriate tool for a particular study has always been problematic, because a decision on the appropriateness of a particular method cannot be made in isolation from the context in which the research problem exists (Downey and Ireland, 1979).

The following section outlines the nature of these methods, and different approaches, and discusses quantitative and qualitative methodologies in the context of this research study.

4.3.1 Quantitative and qualitative methods

Quantitative method implies the application of a numerical approach to the issue under study as well as to the data analysis. The main focus of quantitative methods is on structural measurement and analysis of relationships rather than on the more complex issues of the process (Van Maanen, 1979). Hence quantitative methods have been characterised by some researchers as 'thin', but 'hard' and 'generalisable' (see, for example, McClintock et al., 1979). Through data statistical analysis, quantitative methods are useful in providing precise measurements for social actions by explaining the causal relationships related to specific events using objective criteria (Nettleton and Taylor, 1990).

In contrast to quantitative approaches, qualitative methods look at ways of increasing the richness of the data about the social process in a research problem (Bryman, 1995). They tend to be subjective. Finch (1986) argues that qualitative study is an inquiry process of understanding observed associations between factors, and charts social or cultural phenomena, based on a holistic picture of the people and the social and cultural context within which they live, formed with words detailing the different views of participants. In qualitative research, the investigation aims at providing insights into the organisational and social processes, both tangible and intangible aspects (Van Maanen, 1979).

In the research context, where a certain topic has not been much written about or studied, the qualitative method is usually used to provide an in-depth insight into the phenomena being investigated (Van Maanen, 1979; Bryman, 1995).

4.3.2 Case study

Case study is a typical research method widely used for qualitative data collection in IS/IT research. In case study research, the researcher explores a single phenomenon, as a case, and collects detailed information by using a variety of data collection approaches. It is best used in studies that require deeper understanding of how things happen rather than testing relationships

between them (Gordon and Langmaid, 1988). Case study research is very relevant in studies that focus on the understanding of areas of organisational functioning that are not well documented (Bryman, 1989).

Case study research is an accepted research strategy in the Information Systems (IS) discipline. Many IS researchers have identified case study as their research strategy (see, for example, Benbasat et al., 1987; Kaplan and Duchon, 1988; Eisenhardt, 1989; Lee, 1989; Smith, 1990; Galliers, 1992; Gable, 1994; Yin, 1994; Walsham, 1995; Cavaye, 1996; De Looff, 1997; Irani et al., 1999). Yin (1994) states that a case study, from a research strategy point of view, may be defined as follows:

"An empirical enquiry that investigates a contemporary phenomenon within its real life context, when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used."

As a research strategy, case studies are a particularly powerful technique to answer 'how' and 'why' questions. As noted above, the case study approach refers to an in-depth study or investigation of a contemporary phenomenon using multiple sources of evidence within its real-life context (Yin, 1984,1994). Moreover, the case study approach also refers to a group of methods which emphasise qualitative analysis (Yin, 1984). Adelman et al. (1977) describe case study research as "an umbrella term for a family of research methods, having in common the decision to focus an inquiry around an instance". A case study is also concerned with the interaction of factors and events, and as Nisbet and Watt (1980) point out, "sometimes it is only by taking a practical instance that we can obtain a full picture of an interaction".

In addition, Yin (1994) points out that the evidence for case studies may be obtained from six sources: documents, archival records, interviews, direct observation, participant observation, and physical artefacts. Case study research approach is especially appropriate in new topics areas (Eisenhardt, 1989; Irani et al., 1999), and can be used for both theory testing (Anderson, 1983; Harris and Sutton, 1986; Pinfield, 1986; Cavaye, 1996; Irani et al, 1999) and theory generation (Harris and Sutton, 1986; Gersick, 1988). In addition, case studies can involve either single or multiple cases, and various levels of analysis (Yin, 1984; Irani et al., 1999). Many advocates of the

case study research strategy claim that "the strength of the case study is in the richness of data that can be obtained by multiple means when researchers restrict themselves to a single situation"(Cornford and Smithson, 1996, p. 49). Guba (1981) suggests the validity of this type of research is increased when different research methods are pitted against each other in order to cross-check data and interpretations. He suggests that different methodologies like "questionnaires, interviews and documentary analyses" should be used when possible. A fieldwork case study can be used to collect both quantitative and qualitative data (Weick, 1984).

Benbasat et al. (1987) provided three important reasons why case study research is a viable IS research strategy:

1. The researcher can collect data and obtain evidence from a natural setting and "generate theories from practice" (p. 370);
2. The case study research strategy can answer delicate 'how' and 'why' questions;
3. The case study research can navigate new emerging topics in the field of IS, from which valuable insights can be gained.

Table 4.1 shows different research strategies with corresponding forms of research questions.

Table 4.1: Relevant Situations for Different Research Strategies

Strategy	Forms of research question	Requires control over behavioural events	Focuses on contemporary events
Experiment	How, why	Yes	Yes
Survey	Who, what, where, how many, how much	No	Yes
Archival analysis	Who, what, where, how many, how much	No	Yes/No
History	How, why	No	No
Case study	How, why	No	Yes

(Source: Yin, 1994, p.6)

Several authors, such as De Leeuw (1990), Yin (1994) and Stake (1995), have suggested that a case study research strategy is particularly appropriate for exploratory phases of research in new areas. There are, however, three criteria or conditions set out by Yin (1994) for applying the case study research strategy:

1. Type of research questions: does the research question focus on 'why' and 'how'?
2. Extent of control over behavioural events.
3. Degree of focus on contemporary events.

Despite the fact that Yin (1994) has identified a variety of factors that need to be taken into account when considering an "appropriate" research strategy, these factors should however not be considered in isolation but need to be complemented by a number of other factors (Irani et al., 1999). These complementing factors for the selection of a case study strategy include:

- The need for 'rich' primary data.
- The scope, sensitivity and nature of data required.
- The need to observe the effects of the phenomenon over a period of time.
- The researcher's personal experience and knowledge, and
- Resources' constraints such as time and financial budget.

Moreover, the scope and sensitivity of a case study strategy can be "extensive and may range from individual process to national level" (Irani et al., 1999, p. 191). According to Avison (1993), the strength of the case study is also in its use for examining natural situations and in the opportunity it provides for deep and comprehensive analysis.

4.3.3 Survey questionnaire

Survey research looks at a particular phenomenon by means of a questionnaire or interview (Leedy, 1974). It involves obtaining information directly from participants by posing questions to them. Survey research can be done cross-sectionally or longitudinally (Babbie, 1990). Results from survey research can frequently be generalised to represent the view of the population. This is because in this type of research the information is frequently gathered from quite a large number

of respondents. The purpose of survey research is to find out "what situation, events, attitudes, or opinions are occurring in a population" (Pinsonneault and Kraemer, 1993). It should be noted here that survey research is a technique widely used for quantitative data collection in IS/IT research (Straub, 1989; Pinsonneault and Kraemer, 1993). Survey research can be used for exploration, description or explanation purposes (Pinsonneault and Kraemer, 1993). They further argue that the purpose of survey research in exploration is "to become more familiar with a topic and try out preliminary concepts about it" (p. 79). Bryman (1995) indicates that survey is an appropriate means of collecting data under three conditions: (1) when the goals of the research call for quantitative data, (2) when the information sought is reasonably specific and familiar to the respondents, and (3) when the researcher himself has considerable prior knowledge of particular problems and the range of responses likely to emerge. Bryman also argues that when the aim of the research is to obtain determined answers to questions like 'what', 'when', where', and 'how many', the survey questionnaire represents a good research technique choice. Also, Galliers (1992) argues that survey questionnaires are a good means of looking at a far greater number of variables than is possible with experimental approaches. They can therefore provide reasonably accurate descriptions of real world situations from a variety of viewpoints. However, there are a number of drawbacks in survey research. Little insight is usually gained regarding the cause or the processes behind the phenomenon under study. Babbie (1990) notes that an exploratory survey should be used as the basis for developing concepts and methods for more detailed, systematic descriptive or explanatory surveys (Pinsonneault and Kraemer, 1993).

4.3.4 Interviews

Putins and Petelin (1996) state that interviews are an extremely important form of communication in society. They are a means by which information is exchanged between individuals and successful communication is achieved. Although interviews are essentially an exchange of information, Dwyer (1993) distinguishes interviews from casual conversations on the basis that interviews are planned, prearranged, structured, controlled by the interviewer, have a predetermined purpose, and take place between two or more people of different status. Marshall and Rossman (1989) provide a framework for matching research purpose and strategy with research methods and data capture techniques. Marshall and Rossman suggest that when the

research study has a descriptive and exploratory focus, as was the case in this study, appropriate research strategies are field studies comprising in-depth interviews.

Many writers have placed great importance on semi-structured interviews as an important tool for gathering qualitative data (see, for example, Smith, 1972; Torrington, 1972; King 1994, Jankowicz, 1995). Jankowicz (1995) argues that semi-structured interviews involve asking questions whose content and sequence are not fully specified in advance. Jankowicz labels the technique as "open-ended" in which the respondents are "encouraged to answer in their own words". Kelly (1994) says "if you want to know what a person thinks, why not ask? He might just tell you". Miles and Huberman (1994, p. 6) indicate that a qualitative approach can "result in a holistic understanding of the situation: of the factors involved and how they interrelate, identifying the less obvious issues as well as those which initially grab the attention". In addition, Jankowicz describes the actual phase of asking questions as "elicitation", as he thinks that " effective elicitation is a matter of linguistic and personal intuition and flair; in semistructured interviewing, elicitation is a matter of skill...that you do not provide the respondent with pre-set answer categories" (p. 202-203). He also directs the questioner on how to 'elicit answers' from the respondents to cover "certain previously identified issues within a topic predetermined by the questioner; broad direction pre-set by questioner" (p. 198). Finally, as Mintzberg, (1979, p.587) states, "semi-structured interviews provide a controlled framework which facilitates analysis but also allows for the collection of 'soft' anecdotal data".

4.3.5 Combining qualitative and quantitative methods through triangulation

It has been argued that combining qualitative and quantitative research methods in IS/IT research can be useful in building a wider picture of the phenomenon under study (Reichardt and Cook, 1989), can enable the validation of findings (Jick, 1979) and can help in explaining diverging results (Trend, 1989). Cavaye (1996) also supports combining research approach methods. Cavaye argues that it is possible to collect both types of data, one after the other, from the same site. In the same vein, as can be seen in Table 4.2 (Bryman, 1995), each of the quantitative and qualitative methods has several advantages or disadvantages, depending on the nature of the research being conducted. It is therefore important that the decision as to which research technique should be used is solely based on an identification of the research problems and the appropriate type of data

needed to address them. However, in many cases, research cannot rely exclusively on a particular technique (Van Maanen, 1979). Rather, it may become a necessity that two or more research methods are combined together to investigate the problem in hand, a research approach known as 'triangulation' (Jick, 1979; Burgess, 1984).

Triangulation, as defined by Chadwick et al. (1984, p. 40), refers to "the search for consistency of findings from different observers, observing instruments, method of observation, time, place, and research situation".

Triangulation is a practical approach to combining a number of research methodologies in the study of a phenomenon. Denzin (1988, p.511), explains triangulation as "the application and combination of several research methodologies in the study of the same phenomenon". Denzin (1988,p.512) also suggests "interpretations which are built upon triangulation are certain to be stronger than those which rest on the more constricted framework of a single method".

Bryman (1995) describes different uses of triangulation in research. Among these are to:

1. Seek convergence of results;
2. Expand the scope of study;
3. Have one method to complement the other, so different issues of a phenomenon can emerge;
4. Use one method to enable the development of the other; and
5. Enhance the relationships between 'macro' and 'micro' levels by concentrating on large-scale, structural features of the field, using quantitative research, while addressing small-scale, behavioural aspects through qualitative study.

Table 4.2: Dissimilar Features in Quantitative and Qualitative Research Methods

Dimension	Quantitative	Qualitative
Contact between researcher and informants	Brief or non-existent	Close contract with participants
Relationship between researcher and field	Outsider looking to field by applying pre-defined framework to investigate subject	Researcher has to get close and be insider to field being investigated
Theory/concepts	Operationalised	Emerge as research develops
Approach	Structured, research-driven	Open and unstructured Subject-driven
Findings	Time and place independent Rigid, hard, rigorous and reliable	Relate to specific time period and locales Rich and deep
Focus	Views social world in static manner and neglects role and influence of change in social life	Views linkage between events and activities and explores people's interpretations of factors which produce such connections

(Source: Bryman, 1995)

Although triangulation entails a commitment to greater amounts of money and time, it has the advantage of removing the bias that is often associated with the use of a single technique. As Patton (1990, p. 189) argues, "studies that use only one method are more vulnerable to error linked to that particular method".

4.4 Research Approach

Vogel and Wetherbe (1984), through an analysis of published research papers, provide a classic taxonomy of styles of research within Information Systems. Galliers (1991) provides a development summary of research approaches structured in two broad streams which he classifies as the scientific and the interpretivist. Research approach, in his terminology, is the term chosen to describe the general style of research endeavour.

The lack of systematic research into the IS/IT outsourcing phenomenon in the developing countries' context justifies the exploratory nature of this study. There is a need to establish an integrative and holistic view on IS/IT outsourcing practices in developing countries. The building of guidelines for effective IS/IT outsourcing implementation and practices as a research topic entails a study of organisations in the developing countries that have experienced the IS/IT outsourcing process. This type of research calls for knowledge about the 'what' (structure) and 'how' (process) components of implementation. As has been established before (see Section 4.3.1), the structural aspects of research require the use of quantitative methods, while the process aspects are best investigated using qualitative methods. This calls for a combination of both methods (triangulation) to address the different aspects of this study.

In this study, a methodological triangulation approach is adopted through the use of a national case study, whereby a survey questionnaire is used as the selected quantitative method ('hard' data), and semi-structured interviews to collect the qualitative data ('soft' data).

The study aims to elicit the experience of organisations regarding elements and key factors in IS/IT outsourcing practices. This is clearly targeting the 'what' components of research and it requires a large sample and a wide range of organisations. Given the nature of the topic, as supported by Eisenhardt (1989) and Yin (1989), this type of inquiry favours the use of an exploratory structured questionnaire survey.

Semi-structured interviews and organisational documentation are chosen as the qualitative methods, since sole reliance on the questionnaire survey does not answer the questions of 'how' and 'why' (Mason, 1984), which relate to the process aspects of implementing the key elements in IS/IT outsourcing. The questionnaire survey technique can only measure the 'what' elements, which are not enough on their own to uncover and understand the process that lies behind the phenomenon. Quantitative methods also deal with technological and organisational features statistically rather than dynamically (Kaplan and Duchon, 1988). Furthermore, the process aspects of outsourcing practices and evaluations do vary amongst organisations, as they are often addressed differently, notwithstanding that quantitative findings may reveal a general agreement between organisations on the assessment of the key elements of implementation and practice.

Benbasat et al. (1987) advocate the use of qualitative techniques in the field of Information Systems (IS) to gain insights into the organisational developments associated with the rapid pace of change in IS. Kaplan and Duchon (1988, p. 573) also support the use of qualitative techniques for obtaining interpretations in the IS area, and explain that:

> "Researchers develop categories and meanings from the data through an iterative process that starts by developing an initial understanding of the perspective of those being studied. That understanding is then tested and modified through cycles of additional data collection and analysis until coherent interpretation is reached. Thus, although qualitative methods provide less explanation of variance in statistical terms than quantitative methods, they can yield data from which process theories and richer explanations of how and why processes and outcomes occur can be developed."

Benbasat et al. (1987) believe in the appropriateness of the case study approach for studies in which research is in its early stages, and where the context and respondents are of particular importance to the study. In line with Bonoma (1985) and Yin (1989), the complexity of the context being investigated and the diversity of the issues related to IS/IT outsourcing implementation and practice make the case study approach of particular usefulness. In addition, based on Yin's (1989) definition of case study (see Section 4.3.2), case studies are particularly pertinent when the research seeks information about 'how' or 'why' rather than 'who', 'what' or 'how much', and when the researcher does not have control over behavioural events.

Following the recommendations of Guba (1981), Weick (1984), Bonoma (1985), Benbasat et al. (1987), Yin (1989, 1994), the data in this study were collected thorough survey questionnaires and semi-structured interviews supported by the collection of some organisational documents.

Both data collection methods were used in this study to provide more detailed data about the phenomenon under investigation. Survey questionnaires were distributed and semi-structured interviews were conducted. In addition, some further documentation was also obtained to enrich the comprehension and understanding of IS/IT outsourcing practices in Kuwait. A variety of methods used within the same overall study can be advocated as a positive advantage (Easterby-

Smith et al., 1991, p.133) enabling "data triangulation" techniques. These approaches allowed for the collection of both 'hard' and 'soft' data, and the use of both survey questionnaire and interviews provided "methodological triangulation" (Denzin, 1988), the 'soft' data helping to explain and amplify the 'hard' data.

In this study, the combination of survey questionnaires and semi-structured interviews in the context of the national case study increases the robustness and richness of the findings.

4.5 Research Design

According to Nachmias and Nachmias (1996), research design details where the research will take place, the types of investigations that will be carried out, the sampling-related issues, and means of data collection and analysis.

As has been established earlier, the study represents exploratory research that aims to enhance understanding of IS/IT outsourcing practices from a holistic perspective. The next section gives details of the research design phases. These phases are as follows:

1. Reviewing the existing body of IS/IT outsourcing literature.
2. Identifying research problems.
3. Conducting quantitative research through survey questionnaires.
4. Conducting qualitative research through semi-structured interviews and collecting documentation
5. Performing the analysis of the collected data.
6. Deriving generic guidelines for IS/IT outsourcing implementation.

4.5.1 Quantitative Research through Survey Questionnaires

The survey questionnaire was an attempt to assess the level of importance of the various dimensions and elements that constitute the holistic approach to IS/IT outsourcing implementation; in particular, the experience and implementation process of IS/IT outsourcing practices. Kuwait was chosen for the case study because the author is from that country.

4.5.1.1 Structure and Development

Based on the literature review, a standardised questionnaire was developed to collect data from a large number of organisations in the different sectors of Kuwait. The survey questionnaire consisted of 15 pages (see Appendix A). The questionnaire was designed to obtain a comprehensive view of IS/IT outsourcing practices in Kuwait. The survey questionnaire was developed by the researcher who drew upon previous studies on IS/IT outsourcing practices and general IT (Lacity and Hirschheim, 1993; Gundermann, 1994; Currie, 1995; Lacity and Hirschheim, 1995; Tye and Chau, 1995; Lee and Kim, 1997; Apte et al., 1997; Sohal, 1998).

In general, questionnaire design was carried out according to guidelines laid down by such as Oppenheim (1966, 1992) and De Vaus (1990), and in consultation with lecturers and the research supervisor. Particular attention was focused on the wording, structure, sequence, and overall presentation of the items in the questionnaire. Also, the survey instrument was validated using the procedures recommended by Straub (1989), i.e. instrument review by an expert in the field, pilot test, internal reliability, and statistical conclusion validation.

Following the arguments of Sarantakos (1998), the questionnaire employs, in many sections, a 5-point Likert scale representing a range of 1 (strongly disagree) to 5 (strongly agree). This type of question was used because it was deemed to be efficient, specific in measuring attitudes, and relatively easy to complete (Robson, 1993). Other examples of IS/IT researchers who used a 5-point Likert scale are Sekaran, 1992; Grover et al., 1995; Thong and Yap, 1995; Ghorab, 1997; Lee and Kim, 1997; and Thong, 1999. In two questions in the survey questionnaire, a 7-point Likert scale was used. In fact, these questions were suggested during the piloting phase. In Section II of the questionnaire question 6 was recommended to elicit the degree of awareness. In section III of the questionnaire, the author added question 7 to indicate the degree of IS/IT outsourcing services in the organisation under investigation. A 7-point Likert-scale was used as suggested by one of the IT managers, to identify more accurate by the degree of outsourcing practices. Alshawaf (2001) noted the importance of giving more freedom to the respondents to choose from and Obeidat (2001) used a 7-point Likert-scale in collecting data in on IS/IT outsourcing survey.

The questions used in this questionnaire were closed questions, except for the last section. The estimated time for answering the questionnaire was approximately 30-45 minutes, and perhaps just as important it required no financial or confidential data. The questionnaire was designed to serve two primary purposes. The first was to identify the current framework of outsourcing practices in the different Kuwaiti sectors. The second purpose was to establish the level and sophistication of each sector; in other words, to identify specific constraints or variables that affect IS/IT outsourcing practices in Kuwaiti organisations.

It should be noted here that the questionnaire was written and administered in English. The use of English was deemed very appropriate for two reasons. First, English is the business language in Kuwait, and second, a good command of English is one of the main prerequisites for many IT managerial posts whether held by expatriates or Kuwaitis. In addition, use of an English-language questionnaire eliminated the cross-linguistic equivalence problem associated with questionnaire translation (Douglas and Craig, 1983).

The questionnaire also captured the demographic profile of the respondents in terms of industry type, number of employees, job titles of the respondents, educational background, number of years in the IS/IT profession, gender, nationality, and finally degree major.

4.5.1.2 Organisation of Survey Questionnaire

The questionnaire included six main Sections, as follows:

I. Organisational profile.
II. Information Technology Department Profiles and Plans.
III. Outsourcing Terminology and Issues.
IV. Outsourcing Decision-Making Process.
V. Personal and Job-related Profile.
VI. General Comments.

Section I. Organisational profile

This was a general section, where general information about the organisation was sought, such as the number of employees in the IT department and in the organisation as a whole, as well as the type of activity of the participant organisation.

Section II. Information technology department profiles and plans

This had a different type of question. The questions were largely directed to ascertain facts about the IT department itself in each organisation participating in the study. For example, the first question was to find out what percentage of the organisational annual budget is spent on the IT department. The next question was concerned with obtaining the complexity of the IT department, to see the reporting levels from programmer to IT manager. Question 3 was an important question posed to elicit if the organisation has a formal business strategy. If so, it is followed by Question 4 about the relevance of the IT to that general business strategy. A multiple-choice menu was provided to the respondent to choose from. Question 5 attempted to determine if the organisation has a formal IT strategy, and if so, an embedded question followed as to how often it is updated or revised. Question 6 was about the extent of awareness that the organisation has in regard to information technology advances; a 7-point scale was provided to the respondents. Question 7 was to ascertain the methods of providing IS/IT services. The next question was to view the role of the IT department in the wider organisation. Question 9 aimed at determining the level of the development of the IS/IT unit in the organisation. Four stages of growth choices (initial, expansion, control, and maturity) were supplied for the respondent to select from, according to the level that best represents the state of IS/IT in the responding organisation. Question 10 was used to find out if the organisation had ever experienced difficulties in the delivery of IS/IT services, and was followed by an embedded question to find the reason behind that difficulty. The next question attempted to ascertain how the executives in the organisation come to conclusions when they make strategic decisions about the IT department. Question 12 examined sources of the software currently being used in the organisation, and the final question in that section was about the extent of agreement over a given statement. A 5-point Likert-scale was used to determine the level (Rubin and Babbie, 1993)

Section III. Outsourcing terminology and issues

This consisted of 11 questions. The section started by presenting a simple definition of IS/IT outsourcing in order to make sure that the meaning was clear and understandable for all respondents. The first question was to determine if the respondents were aware of the term and its meaning prior to reading the definition from the questionnaire; a three-point multiple choice list was provided to select from. Question 2 was concerned with finding out the source of information on the topic of outsourcing. Question 3 was about the extent of agreement with a statement in regard to how applicable outsourcing is as an appropriate business decision. Question 4 attempted to ascertain if the organisation had any past experience in outsourcing. Question 5 was a follow-up on the previous question to elicit what type of outsourcing agreement the organisation had had in the past. Question 6 examined the IS/IT functions which had already been outsourced in the past 9 years; a list of different IS/IT functions was provided for the respondent to choose from. Question 7 was put to measure the degree of IS/IT outsourcing services in the organisation under study. A 7-point Likert-scale was provided for the respondent to select from. Question 8 attempted to ascertain if the organisation is considering any future plans with regard to outsourcing. Question 9 also had the same aim of finding out if strategic outsourcing is a part of the IT strategy. Question 10 was concerned with looking at the type of agreement that the organisation finds preferable. The final question, Question 11, addressed the issue of data confidentiality with regard to IS/IT outsourcing.

Section IV. Outsourcing decision process

This comprised 13 questions. It is worth mentioning that this section is regarded as the most important section in the whole questionnaire. It contains in fact the most influential and debatable issues in IS/IT outsourcing. The first question attempted to find out who initiates the decision on outsourcing, and a five-item multiple choice list was provided to the respondent. Question 2 was largely directed to see if the organisation had ever decided to use multiple vendors working simultaneously in two different IS/IT functions. The following question addressed the possible reasons behind such a decision. Question 4 was to see if the organisation ever hired a legal representative to discuss the components of the agreement as a part of the decision-making process. Question 5 was to ascertain if the organisation had improved the internal IT department before engagement in any outsourcing deals or decisions. Question 6 attempted to determine the

people responsible for drafting and revising the contract agreement. Question 7 again looked at the legal issues in case of disputes between the client and the vendors, and which court would be approached. The following question was put to measure the agreement over a given statement. A 5-point Likert-scale was provided to the respondent (Rubin and Babbie, 1993). The following Question 9 attempted to find out if "Arabisation" would be needed for all systems implemented in the organisation. Question 10 was a table to ascertain the possible reasons motivating the organisations to outsource IS/IT functions. 13 different motivations were taken from the literature. The following Question 11 was also a table to ascertain the risk factors while initiating outsourcing deals. 11 different factors were provided for the respondent to select from. Question 12 was also a table aimed at finding the criteria used in the selection process for outsourcing vendors. 9 criteria were supplied to select from. Question 13 was a table to look for the main drawbacks in the post-contract period of outsourcing as a post-implementation evaluation of the IT outsourcing contracts. 6 factors were provided. The point to be emphasised here is that all questions used in the previous tables (Questions 10-13) were closed questions with five categories of responses provided (strongly agree, agree, undecided, disagree, strongly disagree). This type of question was used because it was deemed to be efficient, specific in measuring attitudes, and relatively easy to complete (Robson, 1993).

Section V. Personal and job-related profile

This comprised 7 questions. The first was about the educational qualifications. Question 2 was about the number of years the respondent has been in the IS/IT profession. The next Question 3 asked how the respondent would classify him/herself. The following Question 4 was about the gender of the respondent. Question 5 was about nationality. Question 6 was about the degree major of the respondent. The last question in the section was about the name of the organisation.

Section VI. General comments

This was the last category in the questionnaire and included two final open-ended summary questions. The use of such questions is common practice in survey research instruments. The first addressed the steps taken or followed by the organisation in the case of a decision made to outsource some IT functions to make the experience as positive as possible. The second and final question looked at the steps taken by the vendor to make the transition as smooth as possible.

4.5.1.3 Piloting and Pre-testing

Piloting is defined by Gill and Johnson (1991) as "a trial run-through to test the research design with a subsample of respondents who have the characteristics similar to those identifiable in the main sample to be surveyed" (p. 89).

In order to have a clear and objective questionnaire and also to check the applicability of the survey instrument, it was pilot-tested in a number of organisations in the State of Kuwait.

The specific goals of the pilot test were to develop and validate the survey questionnaire for the more extensive main study, and to identify any weaknesses in the questionnaire, taking into account that the survey was presented in the English language. English was maintained as the medium of the questionnaires as Kuwaiti IT managers are well versed in English which is still the main business language. The outcome of the pilot test was taken into consideration to improve the reliability and the content and context validity of the survey instrument. Also, the observations of the researcher during the pilot test led to some minor modifications in the instrument's length and in the clarity of the questions.

The pilot study was conducted in three organisations:

- Ministry of Planning.
- Al-Ahli Bank of Kuwait.
- Kuwait National Petroleum Company (KNPC).

It should be noted here that each organisation, which was piloted, represented an individual sector, and two IT people were selected in each organisation.

4.5.1.4 Questionnaire Design Changes

A number of changes were made to the original questionnaire according to the pilot test recommendations. In the revised instrument, new questions were added and one complete question was deleted. In the second section of the questionnaire 'IT Department profile and plans', it was recommended that a Question 6 be added, to elicit the degree of awareness of the organisation as a

whole of the state of the art in IT (see Appendix A). A 7-point Likert-scale was then used. In the same section, it was also suggested a question be added that can clearly position the organisational level of development or stage of growth of the IS/IT unit. Question 9 was added with four options to choose from that best described the current stage. In the third section of the questionnaire "Outsourcing terminology and issues", the author added a question to indicate the degree of IS/IT outsourcing services in the organisation under investigation. A 7-point Likert-scale was used, starting from 1(None) to 7 (Very high). This addition was also suggested by one of the IT managers to exemplify the degree of outsourcing practices. In the fourth section "Outsourcing decision process", Question 7 discussed the cases of legal disputes; the question initially offered three choices. A fourth choice was then added to the selection scheme "usually specified in the contract signed by the two parties". This change was strongly recommended by one of the IT managers who had previously gone to court to resolve a legal dispute which arose while carrying out an outsourcing deal. Furthermore, in the second section, Question 10 was completely deleted due to that fact that the question was looking for the most effective tools in increasing the productivity of the IT department. Many of the participants in the pilot study rejected the question, claiming it was irrelevant in the context of the questionnaire.

- **Changes to Layout**

Questions were spaced equally and evenly and bold-faced questions and numbers were carefully outlined. Tables were given more space. A larger space was put between questions to make them distinct. The general layout of the revised questionnaire was more readable and easier to comprehend. Many of these changes were recommended at the pilot testing stage, and accordingly changes were made.

4.5.1.5 Questionnaire Sampling

When the population is large, there will be limited resources in terms of money, time or effort that can be used to complete an enumeration of the whole population (Barnett, 1991). Sampling is therefore used as "the standard method of selecting for a study a representative cross-section of a large population" (Bulmer, 1983, p.91). Another definition of sampling is given by Sekaran (1984, p. 180): "the process of selecting a sufficient number of elements from the population so

that by studying the sample, and understanding the properties or the characteristics of the sample subjects, we will be able to generalise the properties to the population elements".

As noted earlier, this study seeks to obtain as comprehensive and precise a picture of the IS/IT outsourcing practices in Kuwait as possible, and therefore planned to obtain responses from different sectors and different industries to make generalisation of the findings possible. However, the selection process was made 'semi-randomly', as the selection process was based on the organisations that can be described as 'IT intensive users', and chose the most reputable, well-known, and large organisations in the different sectors of Kuwait, in terms of capital, number of employees, and importance to the economy. As supported by Vaus (1985) and Trochim (1997, 1999), this approach can ensure a balance between richness and quality of data obtained which helps develop a better understanding of a phenomenon that is research-poor.

4.5.2 Qualitative Research through Semi-Structured Interviews

4.5.2.1 Organisational Targets

The intention of the study was to target the highest possible level of the IT departments in every respondent organisation. Generally speaking, the IT general managers, IT directors, or head of the IT department, or equivalent would be the main possible target to elicit information. The author contacted organisations either by fax or phone calls and received confirmation of interest in being interviewed. In this context, it is worth mentioning that the decision to interview the IT managers was based on the richness of their IS/IT outsourcing experience.

4.5.2.2 Organisation of Interview

The questionnaire was used a template to provide the structure for the semi-structured format of the interviews to ensure coverage of all issues related to IS/IT outsourcing. As in the questionnaire, the questions themselves were grouped to address the various dimensions of the phenomenon under study. Each key informant in each organisation selected was contacted to schedule an interview time.

4.6 Research Process and Implementation

4.6.1 Selection of Cases

Organisations in the State of Kuwait are categorised as three types: Ministries and public directories (public), independent budget institutions (semi-private), and finally, the private sector. The sample of the study cases needed to be representative of the population of the three types, in order to reflect all aspects of each type. Only organisations with formal IT departments were chosen as a target population. In the public sector, the main ministries which can be described as IT intensive users were selected to participate in the study.

4.6.1.1 Public Sector Organisations

1. Ministry of Planning.
2. Ministry of Interior.
3. Ministry of Electricity and Water.
4. Ministry of Trade and Commerce.
5. Ministry of Finance.
6. Ministry of Justice.
7. Ministry of Public Health.

Availability or approachability of the ministries is an important factor, as some public organisations consider their work very highly confidential and this constraint would seem to be extremely difficult to circumnavigate, for example, the Ministry of Foreign Affairs and the Ministry of Defence. The author contacted the above ministries, but they were reluctant to co-operate.

4.6.1.2 Semi-private Organisations

The second category is the independent budget institutions. In fact, they were the most representative sample in the study including:

Oil sector

The oil sector in Kuwait, a major oil exporting country, is considered to be the largest and richest sector in the country. The author attempted to include all the different companies in that sector in the study. However, due to the limitation of time and difficulties in covering all the petroleum sites, the author has only covered the main bodies in the oil sector, including:

- Kuwait Petroleum Corporation (KPC): founded in 1980 as an umbrella organisation to manage the State's rapidly diversifying oil sector and is considered to be the ambassador of Kuwait's oil industry. Under KPC, there are many smaller companies covered in the study as well, including:
- Kuwait Oil Company (KOC).
- Kuwait National Petroleum Company (KNPC).
- Kuwait Oil Tanker Company (KOTC).
- The Central Bank of Kuwait.
- Kuwait Institute of Scientific and Research (KISR).
- Kuwait Funds for Arab Economic Development.
- Kuwait Investment Authority (KIC)
- Kuwait Stock Exchange.
- Kuwait Industrial Bank.
- Kuwait Airways Corporation.
- Public Authority for Minor Affairs.
- Public Institution for Social Security.
- State Audit Bureau.

4.6.1.3 Private Sector Organisations

The third category covered in this study is the private sector. The author has used the official index of the Kuwaiti Stock Exchange. In that list, all the main sectors (banking, investment, insurance, real estate, industry. services, food) are segregated according to the nature of their commercial activity. Due to the limitations of time and the difficulty in covering all the sectors of

the Kuwaiti Stock Exchange, the author attempted to include all main industries which can be best described as intensive or heavy IT users, including:

1. Banking Sector, including:

- National Bank of Kuwait (NBK).
- The Gulf Bank.
- Al-Ahli Bank of Kuwait
- The Bank of Kuwait & Middle East.
- Kuwait Real Estate Bank.
- Burgan Bank.
- Kuwait Finance House.
- Commercial Bank of Kuwait

The other two banks, Bahrain International Bank and United Gulf Bank, are only registered in Kuwait, and have their headquarters in Bahrain, so they were excluded from the sample.

2. Investment Sector, including:

- Kuwait Investment Company
- Commercial Facilities Company.
- International Financial Advisors.
- National Investment Company
- Kuwait Investment Projects Company.
- Coast Investment & Development Company.
- Al-Ahlia Investment Company.
- The International Investor Company.
- The Securities House.
- Industrial and Financial Investment Company.
- Securities Group Company.
- International Murabaha Company.
- Kuwait Financial Centre Company

- Kuwait and Middle East Financial Investment Company.
- International Investment Group.
- Aref Investment Group.

The Arabian General Investment Corporation was excluded from the study because its headquarters is not located in Kuwait.

3. Insurance Sector, including:

- Kuwait Insurance Company.
- Gulf Insurance Company.
- Al Ahleia Insurance Company.
- Warba Insurance Company.

Arab Insurance Group was also excluded from the study since its headquarters is in Bahrain.

4.6.2 Unit(s) of Analysis

The unit of analysis defines the boundaries of the case study research. The units of analysis can be individuals (e.g. employees or patients), events (e.g. decisions or programmes), or finally entities (e.g. groups, or organisations). In this study, the units of analysis were the IT functions within the selected Kuwaiti organisations.

4.6.3 Field Procedures

Case study investigators deal with real-life situations, not a controlled laboratory environment. Therefore, in a case study research, the researcher "must learn to integrate real-world events with the needs of the data collection plan" (Yin, 1994, p. 68). The field procedure, therefore, should focus its attention on issues of collecting data from a real-life context. Table 4.3 lists the field procedure reminders developed by the author and used in the study throughout the data collection phase.

In this respect, it should be mentioned that potential participants (respondents) were advised about the nature of study before it took place. The first step was to establish contact with influential individuals and senior officials within the organisation to assist with progress of the research. This was important, because in the Arab culture personal and social contacts are very effective in gaining access to organisations (Muna, 1980; Al-Faleh, 1987).

Table 4.3: Field Procedures

1.	Introduction to the organisation should start with the IT managers or directors.
2.	Unofficial introduction, use of personal contacts within or outside the organisation, should start at the earliest possible time.
3.	In each organisation, at least one informant should be interviewed, mainly IT directors or IT senior positions, in case of past outsourcing experience.
4.	At least 2 questionnaires should be distributed in each organisation; in a number of cases, it reached 6 questionnaires in organisations with rich past experience.
5.	Different documentation and sources of evidence should be sought in each organisation.
6.	Respondents are encouraged to fill in the questionnaires in the presence of the investigator.
7.	Presence of researcher is merely to explain questionnaire questions, presented in the English language, and not to influence respondents in any direction.

4.6.4 Data Collection

The initial formal introduction to organisations was a phone call to the organisational targets kindly requesting the opportunity to meet them at a time appropriate to their schedule. Later, a fax would be sent containing a letter from the author and a covering letter from his employer (College of Business Studies), (see Appendix B). In addition, another letter was also provided to the organisational targets from the author's research supervisor at the University of Leeds (see Appendix C). The covering letter introduced the author as a lecturer in its Computer and IS department and requested co-operation to enable him to carry out his research successfully. The author's letter briefly described the research topic, and requested an interview with key IT personnel in the IS departments. The third letter played the same role in identifying the research objectives, goals, mechanisms, and requested further co-operation in eliciting all the data required to complete the study.

4.6.4.1 Access Issues

Access to the Kuwaiti organisation in different sectors, public, private and semi-private is a problematic issue. Issues of data confidentiality (security issues) in the Gulf Co-operation Council (GCC) has always had very high priority in the region in regard to the IS main management issues (Badri, 1992; Khalfan and Gough, 2000 a,b). To overcome this hurdle, cultural networks of relations were used. The researcher, being a professional in the IS field, both as a practitioner and an academic who supervised students while having field training in the different Kuwaiti sectors, was able to gain access to the different IT managers. In addition, letters of recommendation from different parties were of great help in gaining access.

4.6.4.2 Survey Questionnaire

A survey questionnaire was dispatched to the organisational targets in each organisation. In the case of rich past experience with IS/IT outsourcing, then the survey questionnaire would be further distributed to other key members of the IT department to enrich the data. Due to the variations in the language skills among the respondents, the presence of the researcher to ensure proper understanding of the questionnaire was essential. Each answered questionnaire was given a serial code. All data were keyed into a computer to be analysed using the SPSS (Statistical Package for Social Science) program package at the School of Computing of the University of Leeds.

4.6.4.3 Summary of Responses

104 questionnaires were distributed in the Kuwaiti organisations in the three different sectors and 87 were returned a response rate of 83.6%. The data sample was extremely representative of the Kuwaiti sectors and as Table 4.4 indicates, the response rate from each sector was very good, ranging from 76% to 86%. This good response was facilitated by the fact that the general IT managers were personally involved in ensuring that the researcher's requirements were met, and most expressed an interest in the analysis of their organisations. The high response rate was also due to the strict follow-up by the author. In some cases, all non-respondents were telephoned and urged to complete the survey questionnaire in the presence of the researcher.

Table 4.4: Final Questionnaire Responses From Three Kuwaiti Sectors

Sector	Distributed	Returned	No Response	Response Rate
Public	17	13	4	76.4%
Semi-private	37	32	5	86.4%
Private	50	42	8	84%
Total	**104**	**87**	**17**	**83.6%**

It should be mentioned here that 15 questionnaires were returned to the respondents to answer some of the questions which they did not answer previously.

4.6.4.4 Reliability

Reliability refers to a consistency of research result if repeated by a different researcher, with similar data collection procedures (Yin, 1994; De Looff, 1997). According to Sarantakos (1998), it refers to the ability of an instrument to produce consistent results. Reliability is equivalent to consistency. Hair (1998) notes that coefficient alpha, ranging between 0 and 1, is frequently used to estimate reliability when an instrument is developed using rating scales. The reliability figures will be listed in the analysis in Chapters 5, 6, and 7.

4.6.4.5 Internal validity

Internal validity is concerned with "establishing a causal relationship whereby certain conditions are shown to lead to other conditions" (Yin, 1994, p. 33). To simplify, an investigator is, for example, attempting to determine whether variable x will lead as a consequence to variable y. Hence, this kind of testing is mostly needed for causal or explanatory case studies (Yin, 1994). He noted also that "this logic is inapplicable to descriptive or exploratory studies (whether the studies are case studies, surveys, or experiments), which are not concerned with making causal statements" (Yin, 1994, p. 35). In this study, internal validity was achieved thorough the combination of survey questionnaire questions and interviews.

4.6.4.6 External validity

The domain to which case study findings can be generalised entirely depends on situations that are sufficiently relevant or similar to the cases that are being investigated. The existing literature on IS/IT outsourcing seems to provide significant support for the empirical findings of the survey questionnaire and interviews. This can be considered as a form of "external validity" (Yin, 1994) of the findings of this research.

4.6.4.7 Semi-structured interviews

The researcher was able to participate in a conversation-like situation (Jankowicz, 1995), from which valuable information was obtained, rather that operate in a structured, formalised capacity, asking for and receiving limited answers. The use of this particular data-gathering technique in the study enabled the researcher to relax and feel comfortable with the respondent, as there was not a rigid set of specific questions that had to be asked and answered.

Interviews were conducted throughout this period that ended in November 1999. In total, 25 people, who were carefully selected in the light of their qualifications and involvement in their organisations, were interviewed, including IT department heads, and senior IT managers (see Table 4.5). The interviews were entirely semi-structured. The questions were open and not followed by any kind of choice. The chief advantage of this open type of questions is the freedom it provides to the respondent, but they can also be difficult to analyse (Oppenheim, 1966, 1992). Interviews varied in length from around one hour to one hour and half, although some respondents agreed to have further interviews when more information was needed. By far the majority lasted one hour and fifteen minutes. Interviews were recorded to free the author from note-taking and to increase the accuracy of data collection. The point to be emphasised here is that the interviews were in both languages, English and Arabic. That was because the interviewees were multi-cultural, originating from different nationalities. Recordings were later transcribed, and data were organised and analysed by the categories of the research model. Three interviews were not recorded due to the sensitivity of the issues which were discussed. The author had to rely on note-taking for these. All respondents were assured of anonymity so as to motivate open discussions. Two details should be added here to complete the picture. The IT managers were very busy with the Y2K problem, which had indirectly affected the appointments and time to meet. The second

problem was that the data collection procedure started in summer 99, in fact July 99, when usually the weather in Kuwait is very hot, and many of those managers escape this weather by flying to other locations.

After the data were collected, analysis began with the transcription of the interviews. All data obtained from interviews and documents were consolidated and linked together to create a picture of the entire IT outsourcing project process. A content analysis (Remenyi, 1992; Jankowicz, 1995) was used to discover important patterns from the data. Remenyi (1992) argues that content analysis is "a process of investigating the frequency and intensity with which concepts are addressed in the text" (p.76). The analysis focused on distilling motivations, risks, vendor selection criteria, client/vendor relationships, contract drafting and post-contract experience, the effect of cultural and environmental constraints, and project success and failure factors.

Table 4.5: Summary of Semi-structured Interviews

Number of Interviews	Interviewee	Sector
5	IT managers	Public
4	Senior IS/IT staff	Public
2	IT consultants	Public
5	IT managers	Private sector
2	Senior IS/IT staff	Private sector
5	IT managers	Semi-private
1	IT consultant	Semi-private
1	Senior IS/IT staff	Semi-private
Total 25		

4.6.5 Ethical Considerations

The people of Kuwait are not familiar with research instruments. The resistance of interviewees was at times an almost insurmountable obstacle to the path of this research programme. The author tried his best to control certain sources of fear by, for example, emphasising that the purpose of research was in the interest of Kuwait as a nation. Also all respondents at the different

organisations were assured of confidentiality and of the anonymity of their answers. A number of the IT managers have requested the researcher to provide them with the results of the study.

It is worth noting here, that in the Western world, according to Trompenaars (1996), it takes a person one hour and a half on average to answer a questionnaire consisting of 58 questions. In Kuwait, as an example of developing nations, it usually takes couple of hours to complete a similar one. Therefore, the difficulties of applying Western methods of social research in the developing countries cannot be overstated.

4.7 Analytical Tools

In recent years, there has been a growing interest in statistical methods that can be used for developing and presenting descriptive data. The Statistical Package for Social Science (SPSS) was used for the analysis in this study.

4.7.1 Questionnaire Tools

Most of the data collected from the questionnaires were based either on nominal or ordinal scales, which are generally regarded as appropriate for non-parametric methods i.e. methods which are not primarily concerned with the parameters of a normal probability distribution. Under these conditions, ordinal or rank scale is appropriate because it is essentially concerned with categorising responses in a 'natural order' according to the following criteria: strongly agree, agree, undecided, disagree, strongly disagree. In contrast, nominal scale (sometimes called categorical) would be appropriate where the scale is a scale of measurement consisting of a set of categories which cannot be arranged in a natural order, i.e. where objects are either identical or totally different. For example, gender, social class, nationality, and geographic area (Ashford, 1988; Diamantopoulos and Schlegelmilch, 1997). Specifically, the analysis in this study used the following techniques:

- **Frequency Distribution**

The non-parametric data were analysed using univariate analysis-description. Univariate analysis-description consists of frequency distribution (absolute frequencies, relative frequencies, and

cumulative frequencies; measure of central tendency (mean, median, and mode); measure of dispersion/variability (range, variance, and standard deviation) (Diamantopoulos and Schlegelmilch, 1997).

- **Means**

Means were used to analyse some of the questions. The definitions of the arithmetic mean of say a set of n measurement y1,y2,y3.....yn, is equal to the sum of the measurement divided by n (Mendenhall, 1979). In other words, the arithmetic mean is the ratio of the sum of a set of observations to the number of observations (Ashford, 1988).

- **Cross-Tabulation**

Cross-tabulation is defined as a tabular method that can be used to summarise the data relating to two variables simultaneously, with the classes for one variable being represented by rows and the other variables represented by columns (Diamantopoulos and Schlegelmilch, 1997).

4.8 Summary

This chapter has provided a description of the theoretical framework for the empirical phases of this study and has covered the stages for collecting empirical data, presented the research general questions, and explained in detail the methodology. The chapter also translated the objectives of the research into issues to be addressed in the fieldwork. These issues were incorporated into the survey questionnaire and semi-structured interviews as the bases for investigating and studying IS/IT outsourcing practices and their implications.

This chapter has outlined the research methodology used for collecting data. A case study research approach was employed to enhance the data collection procedures. The main questions of the study were stated. The survey questionnaire method was the major data collection mechanism. It was found that this technique was the most appropriate way of collecting the data because of the large number of organisations that participated from different sectors to cover the entire Kuwaiti environment. In this questionnaire, the respondents were the IT general managers and IT senior staff. In addition, a number of semi-structured interviews were conducted to enrich the 'soft' data

needed to complete the study. The selected sample was thought to be reasonably representative of the different sectors in the Kuwaiti environment.

Phases of the research process were discussed in detail. The first phase was the piloting, the result of which was that a number of minor changes were made to finalise the design of the questionnaire. The second phase was the actual data collection period, which consisted of the completion of the survey questionnaires and interviews. Some supplementary documents were also provided to enrich data gathering. The response rate was very high. The different methods of judging the validity and reliability of the research were also taken into account.

The next three Chapters 5,6, and 7 present the analysis of the data collected during the research. Chapter 5 discusses the public sector, Chapter 6 the private sector, and Chapter 7 the semi-private sector.

Chapter Five

Analysis of the Public Sector Data

5.1 Introduction

This chapter focuses on the analysis of the research data for the public sector of Kuwait collected during fieldwork and is based on the methodology discussed in the previous chapter. Each completed and usable questionnaire was given a serial number and coded for the statistical analysis using general purpose coding forms. As mentioned earlier, the SPSS (Statistical Package for Social Science) package was used for the purpose of analysis, and the descriptive statistical analysis mechanism was employed. Descriptive statistics, as defined by Weiss and Hassett (1982), "...consists of methods for organising and summarising information". The descriptive analysis for this research involved calculating frequencies, percentages and means.

The survey questionnaire consisted of six major categories, and in each section there was a varying number of questions related to the title of the category.

The existing literature on IS/IT outsourcing seems to provide significant support for the empirical findings of the survey questionnaire and interviews. This can be considered as an "external validity" (Yin, 1994) of the findings of this research.

In addition to the Introduction and Summary, there are six sections. The second section discusses the organisational profile of the respondents. The third section deals with the cross-tabulation of the results, and provides the reader with more detailed analysis of the Kuwaiti public sector. The fourth section deals with the measurement of reliability analysis. The fifth section deals with information technology department profiles and plans. The sixth section discusses outsourcing terminology and issues. The seventh section deals with the outsourcing decision process.

5.2 Section I: Organisational Profile

This section examines the profile of the organisations to which the respondents of this study belong. Table 5.1 and Figure 5.1 provide a breakdown of the survey sample in terms of organisational sector.

Table 5.1: Kuwaiti Sectors

Sector	Frequency	Percentage
Government	13	14.9
Private (Banking,	23	26.4
Insurance,	5	5.7
Investment)	14	16.1
Semi-private	32	36.8
Total	87	100

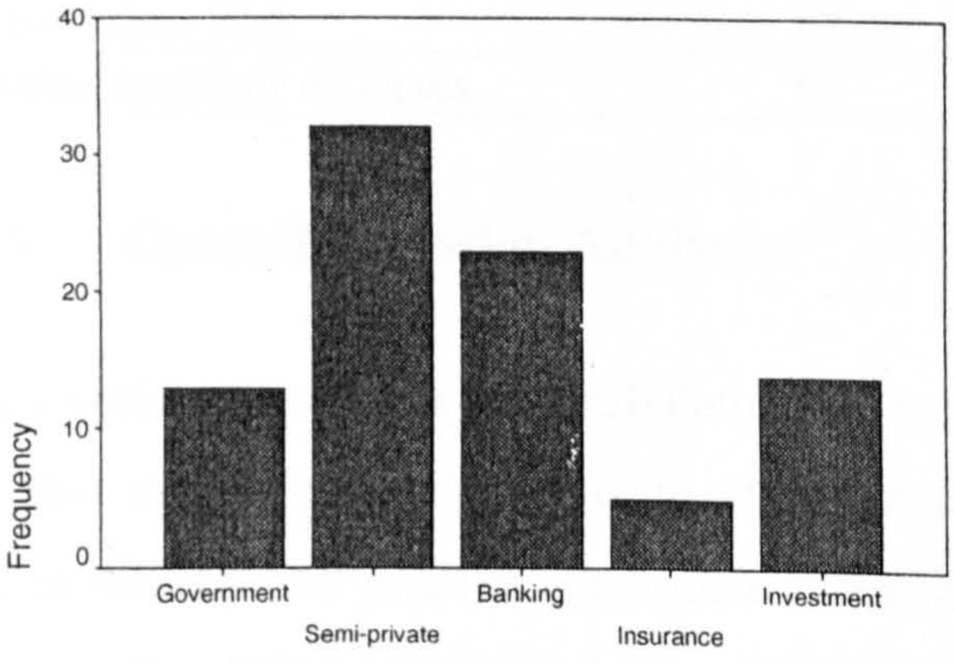


Figure 5.1: Different Sectors of Kuwait

Several demographic characteristics of the responding governmental organisations are displayed in Table 5.2.

Table 5.2: Profile of Responding Government Organisations

	Frequency	Percentage
Government organisations	13	14.9
Total Number of IS/IT staff		
10 to 30	1	7.7
31 to 50	5	38.5
51 to 100	2	15.4
> than 100	5	38.5
IS/IT Department's Reporting Level to CEO		
2 levels	2	15.4
3 levels	6	46.2
4 levels	4	30.8
5 levels	1	7.7
Percentage of annual budget spent on IS/IT department		
Up to 5%	8	61.5
Up to 10%	5	38.5
Total number of employees		
More than 250	13	100
Total number of cases	**13**	**100**

5.3 Cross-Tabulation Analysis

This section deals with cross-tabulation of the results so as to provide a more concise picture of the respondents in regard to their gender, job function, degree major, educational qualifications, and years of experience in the IS/IT profession. The main purpose is to detect a relationship between two variables that would help in the task of explanation. With cross-tabulation tables, frequencies of two variables can be examined at once. It can also help to determine whether variables are related, and if so, can measure the strength of that relationship.

5.3.1 Nationality by Gender

In terms of nationality of respondents, the sample contained individuals from several nationalities. As Table 5.3 indicates, 11 of the respondents were Kuwaiti nationals (84.6 %), while two respondents were European/American (15.4%). Also, in total 11 respondents were male (84.6%), and the remaining two were female (15.4%).

Table 5.3: Nationality by Gender Cross-Tabulation

Nationality	Gender		Total
	Male	Female	
Kuwaiti	9	2	11
European/American	2		2
Total	11	2	13

5.3.2 Nationality by Educational Qualification

As Table 5.4 indicates, there is only one respondent who is a Kuwaiti national and has a high school diploma (7.7%), while 9 respondents who are Kuwaiti nationals have a Bachelor's degree (69.2%). For higher educational degrees, there was one Kuwaiti (7.7%) as well as the two European/Americans (15.4%) who have a Master's degree.

Table 5.4: Nationality by Educational Qualifications Cross-Tabulation

Nationality	Educational Qualification			Total
	High School	Bachelor's Degree	Master's Degree	
Kuwaiti	1	9	1	11
European/American			2	2
Total	1	9	3	13

5.3.3 Nationality by Degree Major

As shown in Table 5.5, it was found that 3 respondents who are Kuwaiti nationals have an information systems degree (23%), also 6 respondents have a computer science degree (46.2%), one respondent has an engineering degree, and one respondent has 'other' degree (7.7%), which could be accounting, finance, etc. On the other hand, the two respondents who were European/American have an engineering degree (7.7%), and 'other' degree (7.7%), respectively.

Table 5.5: Nationality by Degree Major Cross-Tabulation

Nationality	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Kuwaiti	3	6	1	1	11
European/American			1	1	2
Total	3	6	2	2	13

5.3.4 Gender by Degree Major

As Table 5.6 shows, there were 3 respondents who are male and have an IS degree (23%). Also, 4 male respondents have a computer science degree (30.8%), 2 male respondents have an engineering degree (15.4%). Two male respondents have 'other' degree (15.4%), and the two females have a computer science degree (15.4%).

Table 5.6: Gender by Degree Major Cross-Tabulation

Gender	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Male	3	4	2	2	11
Female		2			2
Total	3	6	2	2	13

5.3.5 Job Function by Nationality

As Table 5.7 indicates, there were 8 respondents who classified themselves as IT managers and were Kuwaiti nationals (61.5%), and 3 respondents who classified themselves as in IS/IT senior positions and were Kuwaiti nationals (23.1%). At the same time, 2 respondents who classified themselves as IT consultants were European/American (15.4%).

Table 5.7: Job Function by Nationality Cross-Tabulation

Job Function	Nationality		Total
	Kuwaiti	European/ American	
IT manager	8		8
IT consultant		2	2
IS/IT senior position	3		3
Total	11	2	13

5.3.6 Job Function by Degree Major

As Table 5.8 indicates, it was found that two of the respondents who classified themselves as IT managers have an information systems degree (15.4% of total). Also, five of the respondents who classified themselves as IT managers have a computer science background (38.5% of total), and finally one IT manager has 'other' degree (7.7%). In addition, one respondent who has classified himself as an IT consultant has an engineering degree (7.7 % of

total), and another IT consultant has 'other degree' (7.7%). Also, three respondents who have classified themselves as being in IS/IT senior positions have an IS degree (7.7%), computer science degree (7.7%) and engineering degree (7.7%), respectively.

Table 5.8: Job Function by Degree Major Cross-Tabulation

	Degree Major				
Job function	**Information Systems**	**Computer Science**	**Engineering**	**Other**	**Total**
IT manager	2	5		1	8
IT consultant			1	1	2
IS/IT senior position	1	1	1		3
Total	3	6	2	2	13

5.3.7 Job Function by Number of Years in IS/IT Profession

As Table 5.9 indicates, two respondents who were IT managers have been in the IS/IT profession between 11 and 15 years (15.4% of total). Four of the respondents who were IT managers have been in the IS/IT profession between 16 and 20 years (30.8 % of total). Two respondents who were IT managers have been in the IS/IT profession more than 20 years (15.4%). In addition, two of the respondents who were IT consultants have been more than 20 years in the IS/IT profession (15.4% of total). Finally, three respondents who were in IS/IT senior positions have differences in years of experience: one has been between 6 and 10 years (7.7% of total), another has been between 11 and 15 years (7.7%), and the last one has more than 20 years (7.7 % of total).

Table 5.9: Job Function by Number of Years in IS/IT Profession

	Number of years in IS/IT profession				
Job function	**6 to 10 years**	**11 to 15 years**	**16 to 20 years**	**> 20 years**	Total
IT manager		2	4	2	8
IT consultant				2	2
IS/IT senior position	1	1		1	3
Total	1	3	4	5	13

5.4 Measurement of Reliability Analysis

Reliability simply means the consistency of the measurement. In 1952, Cronbach defined the reliability coefficient (α). Cronbach's alpha is used to determine the internal consistency of

items within a scale for each construct. Nunnally (1978), Litwin (1995), and De Vaus (1996) suggest that an alpha value of 0.70 is sufficient to demonstrate a reasonable level of internal consistency (range from 0 to 1). Furthermore, Nunnally (1978) suggests that an alpha of 0.60 is sufficient for non-validated scales. The reliability of the multi-scale in this questionnaire was determined by using the Cronbach alpha test. Table 5.10 reports the calculated reliability coefficient (α) corresponding to each group, and it shows that all groups have an acceptable level of internal consistency.

Table 5.10: Reliability Value for Factor Groups

Factor Groups	Measurement	Reliability (Cronbach alpha) (α)
Motivation for IS/IT outsourcing	13 items. Reliability of motivation group	0.765
Risk analysis	11 items. Reliability of risk group	0.752
Criteria for IS/IT vendor selection	9 items. Reliability of selection criteria group	0.715
Post-contract evaluation	6 items. Reliability of post-contract evaluation group	0.893

5.5 Section II: Information Technology Department Profiles and Plans

The questions were largely directed to ascertain information about the IT department itself in each organisation that participated in the study. For example, the first question was to find out what percentage of the organisational annual budget is spent on the IT department. The next question was concerned with the complexity of the organisation of the IT department, to see the reporting levels from programmer to IT manager. The figures for Questions 1 and 2 are in Table 5.2.

Q3. Formal Corporate Business Strategy

The purpose of Question 3 was to determine if the target organisation has a 'formal corporate business strategy'. As can be seen in Table 5.11, all respondents (100%) have indicated that their organisations do have a formal corporate business strategy.

Table 5.11: Availability of a Formal Business Strategy

	Frequency	Per cent
No	0	0
Yes	13	100
Total cases	13	100

Q4. IT and Organisational Strategy

The relationship of IT with the overall business strategy of the organisation is examined in this question, the purpose of which was to determine if IT has any formal links to the general organisational strategy. The respondents were provided with four different propositions.

The first choice is "IT was irrelevant to the general organisational strategy". Based on the results shown in Table 5.12, the respondents rejected this proposition, since 11 (84.6%) answered that IT is a vital element and relevant to the general organisational strategy.

Table 5.12: Irrelevant to Strategy

	Frequency	Per cent
No	11	84.6
Yes	2	15.4
Total cases	13	100

A second choice provided was " IT is an enabling tool for the strategy". As can be seen in Table 5.13, 9 (69.2%) of the respondents, the majority, agree that IT is such an enabling tool. On the other hand, 4 (30.8%) have disagreed with this view.

Table 5.13: Enabling Tool for Strategy

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

The third choice was to find out if IT is believed to be " a key resource in implementing the strategy". As can be seen in Table 5.14, 9 (69.2%) have agreed on this proposition. At the same time, 4 (30.8%) have shown disagreement with the third choice.

Table 5.14: Key Resource in Implementing Strategy

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

With regard to the fourth choice, which was posed to determine if IT is believed to be "an integral component of the strategy", as the results show in Table 5.15, the majority of the respondents (12, 92.3%) have disagreed with the statement. It could be that, although the respondents believe strongly in IT as an enabling tool and a key resource in implementing the general organisational strategy, on the actual ground however, IT strategy is not becoming an integral component of the general strategy. Further, these results could also indicate the lack of top management involvement and support for introducing or even integrating IT strategies within the general scope of the organisation (i.e. a lack of IT and business alignment).

Table 5.15: Integral Component of the Strategy

	Frequency	Per cent
No	12	92.3
Yes	1	7.7
Total cases	13	100

Q5. Development of Formal IT Strategy

The next question was used to find out if there is a formal IT strategy developed by the public organisations. As the results show in Table 5.16, 11 (84.6%) of the respondents answered positively that they do have an IT strategy. On the other hand, 2 (15.4%) said their organisations do not have a formal IT strategy. This shows the majority of the public organisations do in fact have an IT strategy.

Table 5.16: Formal IT Strategy Developed

	Frequency	Per cent
No	2	15.4
Yes	11	84.6
Total cases	13	100

Q5. IT Strategy Updating and Revision

The respondents who answered positively to the previous question were further asked to provide an insight on how often the IT strategy of their organisations is updated or revised.

According to the results shown in Table 5.17, 5 (38.5%) of the organisations appear to update their IT strategy on an annual basis, while 3 (23.1%) revised "every 4-5 years". This could be interpreted as no formal or systematic plan, it merely depends on the IT manager in each organisation to develop his own strategy.

Table 5.17: IT Strategy Updating and Revision

	Frequency	Per cent
Rarely	1	7.7
Every year	5	38.5
Every 2-3 years	1	7.7
Every 4-5 years	3	23.1
More as required	1	7.7
Missing	2	15.4
Total cases	13	100

Q6. IT Awareness

This question surveyed the opinions of respondents on whether their organisations are aware of the latest developments in the IT industry. In fact, this question was added to the questionnaire upon the suggestion of many colleagues during the pilot study phase of the survey. The use of a semantic interval scale provided a clear and concise picture of the response patterns for this question. From a visual examination of Table 5.18, it can be concluded that the majority of the public organisations have a moderate awareness about the latest developments in the IT sector. The results in Table 5.18 show that almost half of the respondents 6 (46.2%) have replied with "moderate awareness" about the latest developments in the IT sector. Also, three of the respondents (23.1%) have gone one level up to 5, again suggesting moderate awareness.

Table 5.18: IT Awareness

Choices	Frequency	Per cent
2	1	7.7
3	1	7.7
Moderate Awareness	6	46.2
5	3	23.1
6	1	7.7
Great awareness	1	7.7
Total cases	13	100

Q7. Methods for Obtaining IS/IT Services

Table 5.19 presents the methods that public organisations employ in order to obtain IS/IT services. The internal computer department of the organisations appears to be the most widely used method of obtaining the IS/IT services.

Table 5.19: IS/IT Services Obtained from Internal Computer Department

Choices	Frequency	Per cent
Never	1	7.7
Sometimes	3	23.1
Often	4	30.8
Always	5	38.5
Total cases	13	100

Q8. Role of IT Department

The respondents were asked to indicate the role that the IT department plays in their organisations. The results are presented below (see Table 5.20) and show the sample is divided between the two response options. A proportion of 61.5% considers the IT department to have a supportive/non-core role, while the remaining 38.5% considers the IT department to have mainly strategic role in the wider organisation. It is widely believed among the IT senior staff working in the IT departments, including the IT executives and managers, in the Kuwaiti public organisations, that the top officials in the ministries do not pay close enough attention to the IT strategic role.

Table 5.20: Role of IT Department

	Frequency	Per cent
Core	5	38.5
Non Core	8	61.5
Total cases	13	100

Q9. Overall Growth Stage of IT

This question was posed for the responding IS/IT executives to select one of four descriptions that best characterised the overall growth stage of IS/IT development in his/her organisation (Nolan, 1979). As the results show in Table 5.21, they provide an insight into the level of developments of the IS/IT units in the public organisations under investigation.

Table 5.21: Overall Growth Stage of IT

IS Development Stage	Frequency	Per cent
Initial stage	0	0
Expansion stage	3	23
Control stage	5	38.5
Maturity stage	5	38.5
Total cases	13	100

Q10. Difficulties in Delivery of IS/IT Services

The rationale behind the inclusion of this question was to examine the efficiency and effectiveness of the IT departments of the organisations in the provision of their services. It is noteworthy that 100% of the respondents have experienced difficulties in the way that the IT services were provided by IT departments.

The respondents were further asked to indicate the factors that were contributing to these difficulties. A breakdown of the types of difficulties that these organisations face in the provision of IT services is provided in Figure 5.2. From a visual inspection of the figure, it can be asserted that to some extent all factors (e.g. hardware systems, software systems, expertise/ IT skills, etc) are contributing in a very similar pattern to the delivery difficulties of the organisations.

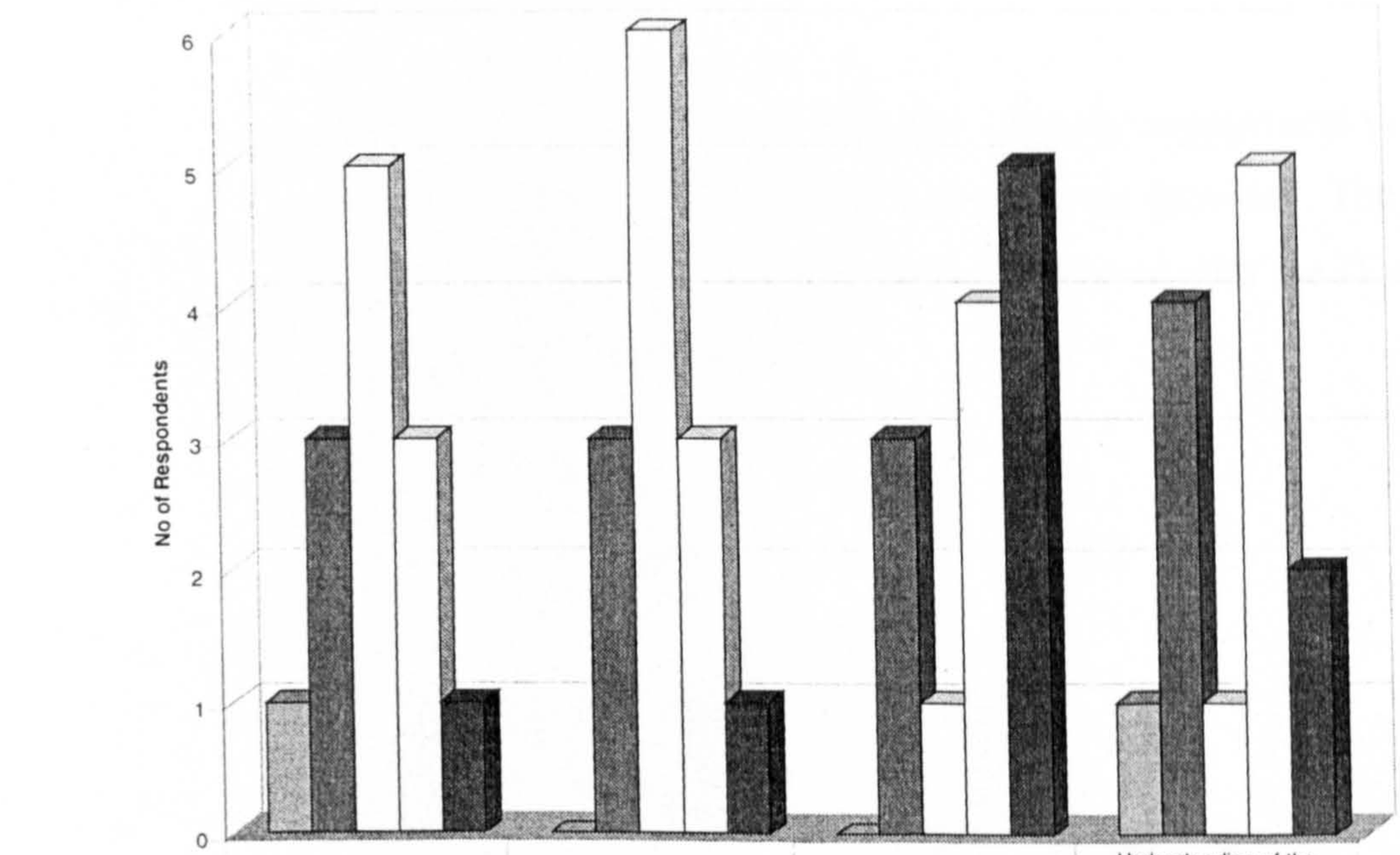


Figure 5.2: Difficulties in Delivery of IS/IT services

Q11. Decision-Making Process

The strategic decision-making process of the executives/top officials/management in the public sector in regard to IT was examined with four different alternatives provided. The first point that emerges from the analysis is that there is a great deal consultation with the IT department before making any strategic decision (see Figure 5.3).

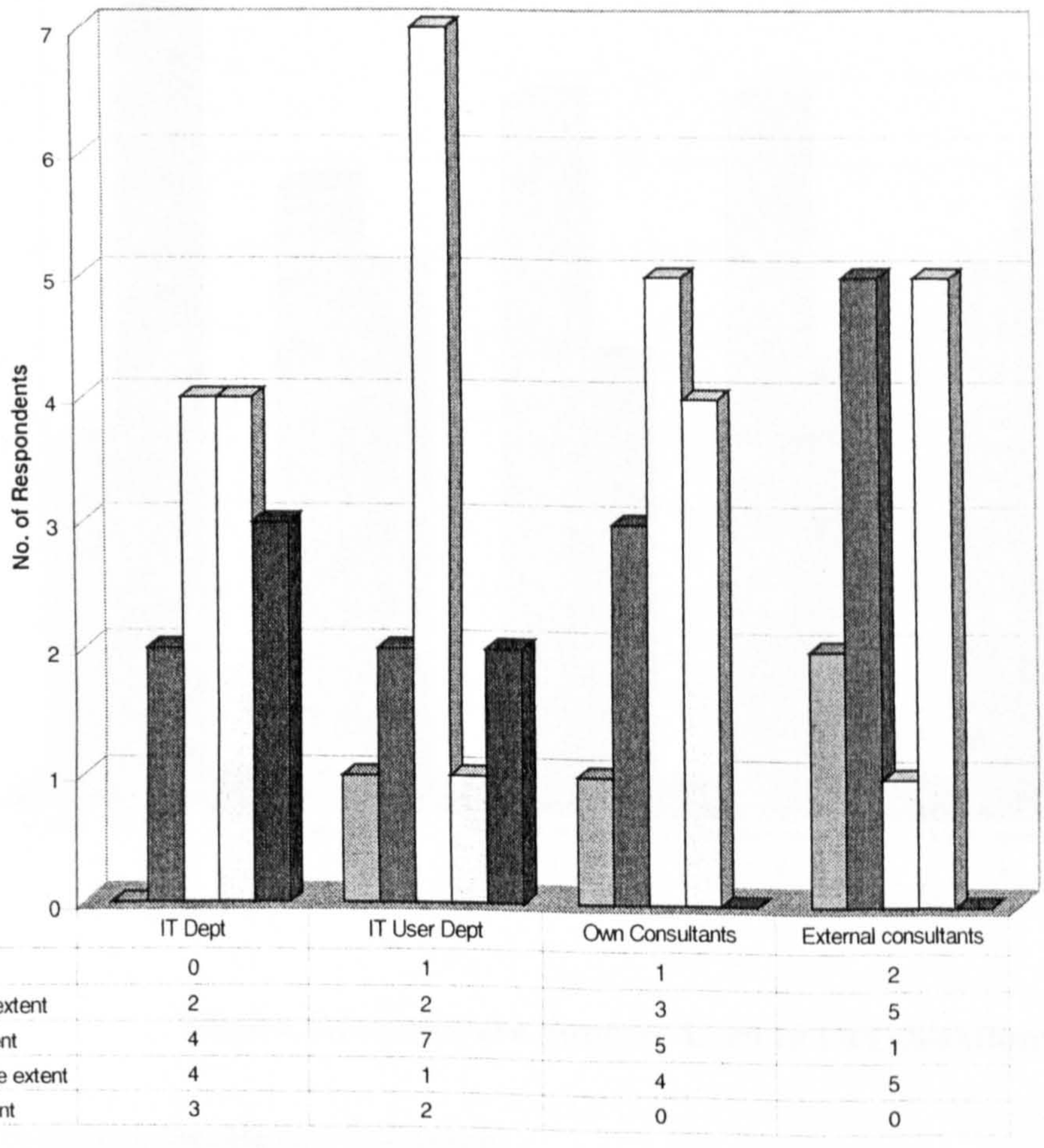


Figure 5.3: Decision-Making Process

Q12. Sources of Software Currently Used in Organisations

Figure 5.4 provides a graphical illustration of the sources of software that are used in the organisations. The majority of the organisations use in-house developed software, as shown in Table 5.22, (9, 69.2%).

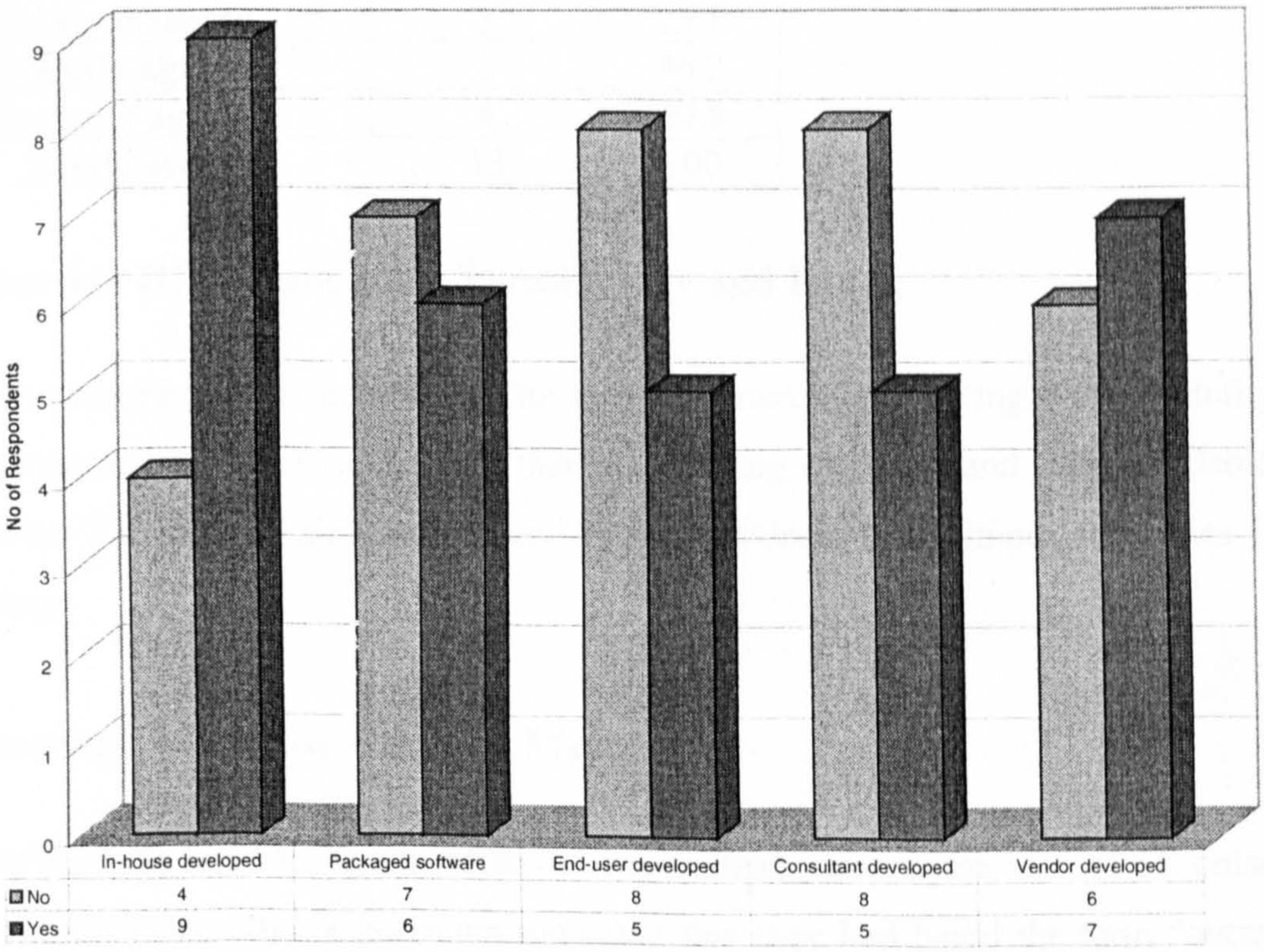


Figure 5.4: Software Sources Used in Organisations

Table 5.22: In-House Developed Software

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

Q13. Keeping up with IT Developments

The last question in Section II of the questionnaire introduces a general statement by which the opinions of the respondents are tested using an attitudinal interval scale. It was designed to determine if respondents felt it was difficult for organisations to keep up with the developments in the IT industry. Most of the respondents (10, 77%) agreed with the proposed statement. The remainder of the sample, (3, 23.1%) slightly disagreed. One of the justifications

for IT outsourcing is that public organisations which do not specialise in IT can no longer keep up with the rate of change in the industry, and should therefore let a specialist assume the role of IT service provider. With most respondents agreeing with this statement, they should be receptive to this as a business reason for IT outsourcing (see Table 5.23).

Table 5.23: Keeping Up with IT Developments

	Frequency	Per cent
Slightly disagree	3	23.1
Slightly agree	6	46.2
Strongly agree	4	30.8
Total cases	13	100

5.6 Section III: Outsourcing Terminology and Issues

This section consisted of 11 questions. The section started by presenting a simple definition of IS/IT outsourcing in order to make sure that the meaning was clear and understandable for all respondents. The general aim of the section is to address some important issues in IS/IT outsourcing.

Q1. Awareness of Outsourcing and Meaning

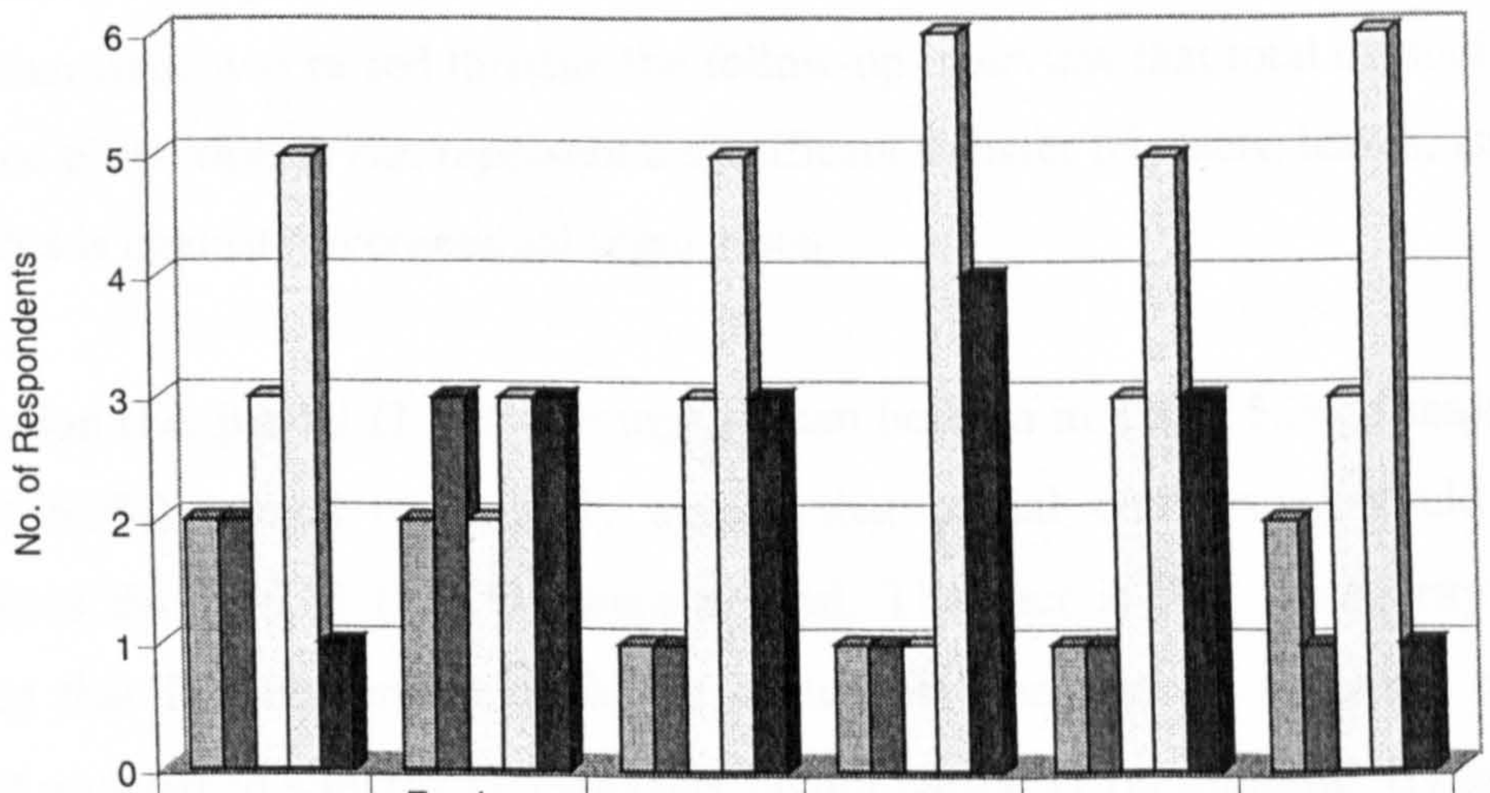
This question was used to assess what the respondents' awareness was of IT outsourcing. Almost all (92.3%) of the respondents indicated that they had heard the term "outsourcing" and knew what it meant. Only 7.7% had never heard the term before. It is reasonable to assume that in order to have an interest in responding to the survey questionnaire in the first place, respondents would need to be aware of what outsourcing is. The results of this question are useful as confirmation that almost all questions were answered by people who felt they knew what IT outsourcing was (see Table 5.24).

Table 5.24: Awareness of Outsourcing and Meaning

	Frequency	Per cent
Never heard	1	7.7
Aware and knew meaning	12	92.3
Total cases	13	100

Q2. Usefulness of Sources of Information on IT Outsourcing

This question was designed to find out the sources of information on the topic of IT outsourcing. Many choices were provided to the respondents to choose from. The analysis of the data revealed personal experience was the most useful source of information. Other sources were also indicated as useful and important sometimes such as trade publications, Internet, employer communications and seminars and IT conferences (see Figure 5.5)



	Trade publications	Employer communications	Seminars	Personal experience	Internet	Co-workers
Not useful	2	2	1	1	1	2
Rarely useful	2	3	1	1	1	1
Moderately useful	3	2	3	1	3	3
Quite useful	5	3	5	6	5	6
Very useful	1	3	3	4	3	1

Figure 5.5: Usefulness of Sources of Information on IT Outsourcing

Q3. Outsourcing of IS/IT Functions, Total or Partial

The level and extent of agreement of the respondents regarding the outsourcing of IS/IT functions were examined in Question 3. The respondents were asked whether they felt outsourcing could be an appropriate business decision. The results of this question are significant. There were two choices provided, total outsourcing and partial (i.e. selective) outsourcing. A majority of respondents (84.7%) did not agree with total outsourcing (see Table 5.25). It could be that total outsourcing could pose a threat to the IT executives and managers. The IT managers would argue that total outsourcing simply means sharing IT management responsibilities (i.e. losing authoritative power). In this regard, it is considered as

management responsibilities (i.e. losing authoritative power). In this regard, it is considered as something which must be avoided in order to stay longer in these attractive positions. In addition, these results could be explained in light of lack of past experience in dealing with third party IT service providers (i.e. mostly foreigners who originate from diverse nationalities, which in this case could raise many cultural miscommunication issues and inconsistencies, especially taking into consideration security and data confidentiality). Moreover, it should be noted here that total outsourcing could bring serious employment problems to the government. The fact of the matter is that there are in some IT departments in the public organisations many employees who have no 'clear and obvious' role within the IT department. Another issue was raised through the follow-up interview that total outsourcing is not favoured as one of its aspects can represent a significant transfer of assets, leases, and staff to a vendor, and this is against governmental regulations.

For the second option (i.e. partial IT outsourcing), as can be seen in Table 5.26, a majority of respondents 10 (76.9%) agreed or strongly agreed that partial outsourcing could be an appropriate business decision. 3 (23.1%) were neutral. The fact is that a majority of the respondents agree that IT outsourcing could be a business decision. In the light of these figures, one could understand why the IT managers favour partial IT outsourcing. By so doing, they still hold the main management of IT functions inside their organisations, at the same time leveraging their difficulties and shortcomings to vendors as well as finding a solution to the severe shortage of IT manpower. In summary, these results provide a pragmatic picture of the current situation.

Table 5.25: Total IT Outsourcing

	Frequency	Per cent
Strongly disagree	5	38.5
Slightly disagree	6	46.5
Neutral	2	15.4
Total cases	13	100

Table 5.26: Partial IT Outsourcing

	Frequency	Per cent
Neutral	3	23.1
Slightly agree	7	53.8
Strongly agree	3	23.1
Total cases	13	100

Q4. Past Experience with IT Outsourcing

This question was designed to determine if the organisations had any experience in dealing with IT outsourcing in the past. As the results show in Table 5.27, 11 (84.6%) of the respondents have had some experience, and dealt with IT outsourcing previously. However, we were hesitant at this level to ask the respondents whether the experience was positive or negative.

Table 5.27: IS/IT Outsourcing Past experience

	Frequency	Per cent
No	2	15.4
Yes	11	84.6
Total cases	13	100

Q5. Type of IT Outsourcing Agreement Preferred

This question had as its aim to identify the type of outsourcing agreement that each organisation under investigation has practised previously. There were six choices provided to choose from. The three most popular types of outsourcing appear to be 'selective outsourcing', 'project-based outsourcing' and 'education and training', as presented in Tables 5.28, 5.29, 5.30, 5.31, 5.32. As discussed previously, the concept of total outsourcing agreement is not favoured in the public organisations. 11 (84.6%) of the respondents favoured the selective outsourcing agreement. In addition, 10 (76.9%) of the respondents favoured the project-based outsourcing agreement. The third most accepted type of outsourcing agreement is education and training, which captured 8 (61.5%).

Table 5.28: Total IT Outsourcing

	Frequency	Per cent
No	13	100
Yes	0	0
Total cases	13	100

Table 5.29: Selective Outsourcing

	Frequency	Per cent
No	2	15.4
Yes	11	84.6
Total cases	13	100

Table 5.30: Project-Based Outsourcing

	Frequency	Per cent
No	3	23.1
Yes	10	76.9
Total cases	13	100

Table 5.31: Function-Based Outsourcing

	Frequency	Per cent
No	11	84.6
Yes	2	15.4
Total cases	13	100

Table 5.32: Training and Education Outsourcing

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Q6. IT Functions Previously Outsourced (from 1991)

This question was designed to find out what IT functions have been outsourced in the public organisations in the past 9 years (following the liberation of Kuwait in 1991 from the Iraqi invasion). Tables 5.33, 5.34, 5.35 and 5.36 provide a detailed view about the extent of outsourcing arrangements that took place in the organisations under investigation. Almost all the IT functions were outsourced for the majority of the organisations. However, the most common tasks to be outsourced are: network and communication management, education and training, systems/software development and maintenance, and technical support functions. This is not surprising, given the relative maturity of these areas, and the extent to which they can generally be performed, detached from the specifics or peculiarities of the business operations that they support. Hurley and Schaumann (1997) report on IT functions that are being outsourced in Australia. They also compared their findings with the USA. Table 5.37 presents their findings on functions outsourced in Australia and US. There are some similarities with Kuwait. Software application development and maintenance and network management appear to be common IT functions outsourced in the different countries.

For the Kuwaiti public organisations, network management seems to be widely outsourced, 9 (69.2%), and education and training, 9 (69.2%) has received the same priority, followed by systems/software developments and maintenance which attracted 8 (61.5%). Also, technical

support function has received much attention, 7 (53.8%). Tables 5.33, 5.34, 5.35, 5.36 show the results. One can argue that network and communication has become a pressing IT issue in recent years. All distributed locations must be interconnected by some form of networking. Specialised technical manpower is needed to perform these required IT functions. Thus, turning over this tedious job to a third party IT service provider would address the requirement. Also equally important, educating and training for the staff is becoming a pivotal issue. This is a theme echoed in many investigations. Scott (1998, p.14), for example, states that "many IS developers need re-skilling, training, motivation...". This issue is of particular importance for developing countries in which, according to Jayasuriya (1995), Lehmann (1995) and Jain (1997), there is a lack of qualified IS personnel. Therefore, continuing training is an essential for IT staff development. What is surprising, though, is the high ranking of systems/software development and maintenance, having long been considered an area too closely related to the business operations of the organisation.

Table 5.33: Network Management

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

Table 5.34: Systems/Software Applications Development and Maintenance

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Table 5.35: Training and Education

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

Table 5.36: Technical Support Functions

	Frequency	Per cent
No	6	46.2
Yes	7	53.8
Total cases	13	100

Table 5.37: US and Australian IT Outsourcing Percentages

IT Function	USA	Australia
Application development	28	26
Application maintenance	21	26
Data centres	19	27
LANs/WANs	14	25
Desktop systems	14	17
End-user support	14	19

Source: Hurley and Schaumann (1997)

Q7. Degree of IS/IT Outsourcing

The degree of outsourcing of IS/IT services in the organisations was examined in Question 7. The responses follow a normal distribution, something that implies a modest result. To provide a more concise explanation for this question the mean value will be discussed. The mean score is 3.62. Considering that the measures were taken on a 7-point interval scale, it can be safely said that there is a relatively high degree of IT outsourcing within the organisations. In the results presented in Table 5.38, most of the responses centre on choices 3 and 4, which makes up the majority, 8 (61.6%).

Table 5.38: Degree of IS/IT Outsourcing

	Frequency	Per cent
None	1	7.7
2	1	7.7
3	4	30.8
4	4	30.8
5	2	15.4
6	1	7.7
Total cases	13	100

Q8. IT Outsourcing Plans

The next question was used to find out if the public organisations are intending to outsource some of their IS/IT activities as part of their future plans. As is demonstrated in Table 5.39, 11 (84.6%) of the respondents answered positively, something that indicates a positive inclination towards IS/IT outsourcing.

Table 5.39: IT Outsourcing Plans

	Frequency	Per cent
No	2	15.4
Yes	11	84.6
Total cases	13	100

Q9. IT Outsourcing Part cf Future Organisational Strategy

This question was to determine if IT outsourcing was a part of the IT future strategy in the organisation. As the results show in Table 5.40, 10 (76.9%) of the respondents said that strategic outsourcing is a part of the IT future strategy, and something that is always on the top of the agenda for any IT executive to consider as a viable option.

Table 5.40: IT Outsourcing Part of Future Organisational Strategy

	Frequency	Per cent
No	3	23.1
Yes	10	76.9
Total cases	13	100

Q10. Preferred Type of Outsourcing Relationship

The purpose of the question was to determine what type of relationship the organisations prefer. Most organisations, as is illustrated in Table 5.41, 11 (84.6%) of the respondents prefer a short-term relationship (i.e. 1-3 years). On the other hand, very few (2,15.4%) prefer an over-3 years type of relationship. The main reason for the short-term (i.e. trial and error approach) to IT outsourcing arrangements is the poor definition of role and service which permeates the practice of IT outsourcing. Without guidelines or set terms of reference afforded by clear role definitions, service level agreements and delivery expectations, there is no rule book by which to operate. Without a set of rules to fall back on when any conflict occurs, the result is chaos and confusion. It easier when the ad hoc contracting arrangements dominate. At least it would not be very costly compared with total outsourcing. From the vendor perspectives, it was also found that due to some social, environmental and political reasons, the major IT vendors (i.e. foreign subsidiaries) would not favour or like to establish a long-term commitment.

Table 5.41 Preferred Type of IT Relationship

	Frequency	Per cent
1-3 Years	11	84.6
Over 3 years	2	15.4
Total cases	13	100

Q11. Data Security as Major Outsourcing Concern

The last question of this section surveyed the opinions of respondents on whether the issue of data confidentiality (e.g. security) is a matter of major concern when they are discussing the possibility of IT outsourcing arrangements. As shown in Table 5.42, the majority of the respondents 11 (84.6%) consider the issue as very critical and significant, while 2 (15.4%) of the respondents were neutral.

Table 5.42: Security Issues

	Frequency	Per cent
Strongly disagree	0	0
Slightly disagree	0	0
Neutral	2	15.4
Slightly agree	4	30.8
Strongly agree	7	53.8
Total cases	13	100

5.7 Section IV: Outsourcing Decision Process

This section discusses the results on the attitudes/opinions of the respondents on the IT outsourcing decision-making process.

Q1. Initiation of Decision on IS/IT Outsourcing

The purpose of this question was to identify who initiates the IS/IT outsourcing decisions. As is shown in Tables 5.43, 5.44, 5.45, the IT managers mostly initiate the decision on IS/IT outsourcing (Table 5.44). Also, it can be noticed in Tables 5.43, 5.45 that neither the top management nor the MIS executives have any major decision initiation on IT outsourcing.

The lack of top management involvement and support is always an issue of concern. The IT literature is replete with studies that emphasise the importance of top management support in making progressive use of IT (Grover and Goslar, 1993). Top management support can

facilitate implementation of new IT strategies in various ways. It is crucial for mobilising resources for implementing the IT strategy. It can also influence organisational members to focus attention on IT core rather than non-core requirements, and the non-core can be outsourced. Top management must help with the political and budget allocation issues that often arise in these types of situations. Top management can also encourage different functional managers to cooperate to provide the information required for successful adoption of IT outsourcing strategies. Top management involvement in the IT planning process will provide education to employees about the importance of outsourcing strategies and mitigate concern about whether the benefits gained from the use of IT outsourcing merit the cost of implementation. Thus, strong top management commitment is an essential ingredient for a successful adoption of IT outsourcing. Finally, with the support of top management, an easy decision-making process can be initiated and completed. Also, in a high power distance cultures like Kuwait's (Aladwani, 2001), power structures are respected and top officials tend to dominate decision-making.

However, it should be noted here that most, if not all, of the top management executives in the Kuwaiti public organisations are lacking crucial awareness and adequate knowledge of IT in general. This line of argument is supported by Abdul-Gader, (1999) who found a severe lack of sufficient computer knowledge among middle and top management in the public sector of Arab Gulf states. They mostly believe that IT is mainly supportive/operational (i.e. non-core), and therefore, a big budget should not be allocated to IT. This often arises from a fear of unknown IT technology. In addition, Gibson (1998) asserted that top management involvement is a critical ingredient for successful planning for IT transfer in the developing countries of Latin America. Aladwani (2000) emphasised, in his study on IT projects in Kuwait, the importance of involving the management and users in IT implementation activities. Management has to be 'deeply involved in' and provide quality input to the IT initiatives and projects.

Table 5.43: Top Management

	Frequency	Per cent
No	10	76.9
Yes	3	23.1
Total cases	13	100

Table 5.44: IT Managers

	Frequency	Per cent
No	2	15.4
Yes	11	84.6
Total cases	13	100

Table 5.45: MIS Executives

	Frequency	Per cent
No	11	84.6
Yes	2	15.4
Total cases	13	100

Q2. Multiple Vendors Working Simultaneously in Two Different IT Functions

This question was used to find out if the organisations have ever used multiple vendors working simultaneously in two different IT functions. 10 (76.9%) of the respondents have considered this in the past, while 3 (23.1%) of the respondents answered negatively (see Table 5.46).

Table 5.46 Multiple Vendors Working Simultaneously

	Frequency	Per cent
No	3	23.1
Yes	10	76.9
Total cases	13	100

Q3. Reasons for Simultaneous Working

The respondents who answered positively on the previous question were further asked to provide an insight on the reasons behind that decision. Four different choices were offered to the respondents. As the results show in Tables 5.47, 5.48, two of the proposed statements were accepted as being the rationale behind that decision. The first accepted rationale was "safeguard against being dependent upon a single vendor" which captured 8 (61.5%). The second "have more access to world-class technology and expertise" which was also accepted by 8 (61.5%). The respondents did not accept the other two statements. One interpretation of these figures is that, despite the organisations' desire to obtain leading-edge technology, at the same time they do not want to become dependent on only a single vendor. Past experience has shown the high risk of putting all their eggs in one basket. Many IT projects in the government have had a high rate of failure, for many reasons, including depending on one vendor who in the end is unable to meet all the IT requirements which were agreed upon. But at the same

time, dealing with only one vendor makes things easier from the management perspective, instead of dealing with a number of vendors. The co-ordination time among the different vendors may be costly as well in some cases. Yet, the fact remains that if one vendor fails to deliver what has been agreed upon, the second vendor may meet the requirements.

Table 5.47: Safeguard Against Being Dependent Upon Single Vendor

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Table 5.48: More Access to World-class Technology and Expertise

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Q4. Legal Representation

The following question was used to determine if the organisations have hired a legal representative to represent them as part of the decision-making process. The striking fact is that the majority 9 (69.2%) of the respondents have indicated that no legal representative would be hired in any outsourcing decision-making process, while 4 (30.8%) of the respondents replied they would hire one (see Table 5.49). This finding is contradictory to the conventional wisdom. In the developed countries, each outsourcing arrangement is closely followed, and the contract is drafted by a combination of technical committees and legal authorities. It is a well known fact that a proper contractual agreement is the key factor in any successful outsourcing practice. It seems a clear deficiency here in the public sector, as they do not pay enough attention to the legal aspects of the IT outsourcing deals.

Table 5.49: Legal Representation

	Frequency	Per cent
No	9	69.2
Yes	4	30.8
Total cases	13	100

Q5. Improvement of IT Department Before Outsourcing Decision

The findings of Question 5, as presented in Table 5.50, indicate that 9 respondents (69.2%) considered improving their own IT departments before any attempt is made to outsource IT functions and activities.

Table 5.50: Improvement of IT Department Before Outsourcing Decision

	Frequency	Per cent
No	4	30.8
Yes	9	69.2
Total cases	13	100

Q6. Outsourcing Contract Drafting and Revision

This question was aimed at finding out who usually drafts and revises the IT outsourcing contract. The survey results clearly point out that IT managers and legal/law departments are those who are drafting and revising the contract for all outsourcing practices, with 61.5% in both cases (see Tables 5.51, 5.52)

Table 5.51: IT Managers Draft/Revise Contracts

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Table 5.52: Legal/Law Departments Draft/Revise Contracts

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Q7. Legal Disputes and Legal Action

The respondents were asked how they would settle their legal disputes in case of such a possibility. The results as presented in Table 5.53 show that the organisations in the case of legal disputes with the vendor would prefer to settle legal cases locally, as 8 (61.5%) favoured this, despite the fact that the local legal system is not well-prepared for IT-related issues. Also, 8 (61.5%) of the organisations prefer to address these legal issues in a specific way when the contracts and agreements are drafted with IS/IT vendors (see Table 5.54). At the same time,

where respondents were asked if they would like to settle their cases in an international legal system (a neutral country) or the host country of the IT vendor, it was notable that 100%, all 13, of the respondents totally disagreed with these possibilities. This could be explained by the fact that it would be complex and difficult to achieve legal solutions with the vendors abroad. To further illustrate this point, there is, first, complete ignorance of the legislation system abroad, and secondly, the cost would be very significant to seek justice there. Very surprisingly, one of the comments which IT managers made to the author was that they would rather leave the vendor and not conduct any more business with him rather than seeking or taking legal actions in the home country of the vendor. This comment was based on previous cases and past experience, where a number of Kuwaiti private organisations lost their legal cases because of lacking understanding of the legislation system in those countries.

Also, it was repeatedly mentioned to the author by a number of respondents that taking or resorting to legal action against the vendor would be the "last thing to do" since it may waste a lot of resources and time. The court and the local legislation system itself "is not ready" for such legal disputes, since much IS/IT legislation is lacking and also there is no specialised technical court where such IT technical details could be discussed or understood. In most similar cases, the judge would divert the case to the so-called " experts' department", where an IT specialist would be called from outside the department. This IT expert would analyse the case and provide the court with his best opinion. It is finally for the judge to accept this kind of judgement and analysis, or the judge has the right to reject it and seek a different path of analysis. Therefore, most of the cases would take years and cost significantly.

A further point which should be noted here is that according to a new governmental law, all vendors who wish to do business with the government should have local Kuwaiti agents so that, in case of any disputes, the local legislation system can be referred to. Accordingly, there is now no option for vendors to choose any legal system other than the local Kuwaiti legislation system.

Table 5.53: Local Legal System Referred for Disputes

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

Table 5.54: Legal Issues Usually Specified in Contract Signed by Two Parties

	Frequency	Per cent
No	5	38.5
Yes	8	61.5
Total cases	13	100

The research was interested in examining and exploring some additional contractual and legal related issues. Defining the legal contract between the client and IT vendor is a pivotal issue in the IT environment in the developing countries in general and Kuwait in particular. In fact, contract design and implementation are likely to be highly influential in determining the price and perceived quality of IT services (Domberger et al., 2000). Further, contract design covers key elements such as: the duration, nature of IT services, and type of equipment.

There is a lack of rigorous legislation relevant to the computer-related technology environment. All the IT managers and MIS executives have expressed concern over this. Matters are made even worse when the multi-national companies come to Kuwait; they avoid the Kuwaiti local laws since they do not protect these firms on any IT-related issues.

In practical terms, the main type of contract which has been used in the Kuwait public sector is the time and materials (open ended) contract, where IT vendors were given an open-ended financial contract, and expected to invoice the client at the end of the job. This kind of "loose contract" in the UK was described as "run and run", and to be avoided (Currie, 1996, p.233).

Also, it should be noted here that the main method of awarding IT outsourcing contracts in the public sector is through competitive tendering. Very few IT outsourcing contracts were awarded through direct negotiations.

Q8. Right Contract or Agreement as Key Factor

As is demonstrated in Table 5.56, the vast majority of respondents 12 (92.3%) are inclined positively towards the statement that the "Key factor for establishing a successful outsourcing relationship is to have the right contract or agreement". This conclusion is supported by the mean value as presented in Table 5.55. A mean value of 4.54 in a five-point Likert scale is considered to be a valid indicator of a reliable result. Furthermore, the standard deviation (.66) shows that the variation between the responses is minimal (see Tables 5.55 and 5.56). Further it was stated in a number of interviews that due to lack of experience in dealing with IT

outsourcing issues, it is often the case that the IT departments in the public agencies accept fully, perhaps sometimes with minor amendments, the contract proposed by the vendor. This kind of contract definitely protects the vendor and provides less protection to the clients.

In addition, Lacity and Hirschheim (1993) provided a number of examples of IT senior management who have reported their disappointment with their outsourcing vendors, especially in the area of contracts.

As Gloerman and Vining (1996) state, "many governments are quite secretive about their contracting-out experience, especially when there are problems" (p. 584). They emphasise that the governmental institutions should communicate with each other to be 'learning organisations'. They add, "better contracting out is possible with forethought about the nature of the 'game' and some learning".

Table 5.55: Right Contract Mean Value and Standard Deviation

Number of respondents	13
Mean	4.54
Standard Deviation	0.66

Table 5.56: Right Contract as Key Factor

	Frequency	Per cent
Strongly disagree	0	0
Slightly disagree	0	0
Neutral	1	7.7
Slightly agree	4	30.8
Strongly agree	8	61.5
Total cases	13	100

Q9. Need for Arabisation of IT Systems

This question was addressed to find out if there is a real need for 'Arabisation' of all systems implemented in the organisations. As the results show in Table 5.57, 7 (53.8%) of the respondents think it is in fact needed. On the other hand, 6 (46.2%) of the respondents responded that there is no real need to 'Arabise' the IT systems in the public organisations.

Table 5.57: Need for Arabisation of IT Systems

	Frequency	Per cent
No	6	46.2
Yes	7	53.8
Total cases	13	100

Q10. Reasons or Motivations for IS/IT Outsourcing

This question proposed to the respondents a number of reasons that could have been a motivation for the organisations to outsource IT functions. The respondents were asked to rate on a five-point scale the degree of agreement on each reason.

The percentages quoted in the following discussion indicate the number of respondents who agreed or strongly agreed with the relevant statement, the mean is a weighted calculation with greater weight given to strongly agree. The reasons are ranked according to the mean.

Table 5.58: Ranking of Motivating Reasons for IS/IT Outsourcing in Public Sector

Motivating Reasons	Rank	Mean	Standard Deviation	Scale
Resources are not available internally	1	4.46	0.52	1-5
Gain access to leading-edge technology	2	4.23	1.01	1-5
Faster application development	3	4.15	0.69	1-5
Shortage of technical staff	4	4.08	0.64	1-5
Rapid pace of technological change	5	4.00	0.82	1-5
Reduce and control of operating cost	6	3.85	1.34	1-5
Enhancement of IT staff expertise	7	3.77	1.01	1-5
Increased availability of service providers (vendors)	*8	3.69	1.18	1-5
Improve core business competence	*8	3.69	0.85	1-5
Enhance flexibility and responsiveness	10	3.62	0.77	1-5
Avoiding of obsolescence risk	11	3.38	0.77	1-5
Share risk	12	2.92	1.04	1-5
Cash infusion	13	2.62	1.04	1-5

*** Denotes tie for motivating factor**

Respondents were asked to rank the reasons most often quoted in the literature for IT outsourcing. Apte (1992), for example, notes that cost reduction pressure, the difficulty of finding a suitable systems workforce, the need to access leading-edge technology, and the increased availability of outsourcing vendors in the marketplace are, among other reasons, the most substantial in motivating outsourcing in the developed economies.

It was notable that "resources are not available internally" was ranked the most prominent factor in motivating IT outsourcing in the Kuwaiti public sector (see Table 5.58). In fact, all the respondents (100%) agreed that this factor is the most important. Organisations often outsource because they do not have access to the required resources within the organisation, whether managerial, software, hardware or manpower. Currie (1995) found "resources acquisition" was an important reason for investigating IT outsourcing. Lacity and Hirschheim (1993) identified "the need to acquire resources" to be the second of the "participant's reasons for initiating outsourcing evaluation". It should be noted here, however, that some vendors while 'negotiating outsourcing deals' offer the client organisations 'sweeteners' in the form of latest IT technology and access to scarce IT skills (Currie, 1995). A further point should be made here is that this parameter is closely linked to other factors, which will be discussed later on.

Also very important, "gaining access to leading-edge technology" was a prime reason for outsourcing; it has attracted 76.9% of the respondents' views. Seeking an external vendor, therefore, would fulfil this demand by the acquisition of the most sophisticated IT technology. One probable explanation for this result is that the IT managers were scared of being left with old IT technology. They seek the newest technology without realising that there should be adequate IT strategic planning, especially considering the lack of sufficient computer knowledge among middle and top management of the public sector, as already noted (Abdul-Gader, 1999).

Another important dimension that captured a high level of agreement was faster application development. Indeed, an overwhelming majority (84.6%) of the respondents agreed on that factor. It can be argued that IT service providers have the capability to produce computer software applications in a faster and more efficient way than in-house developers. This can be attributed to the economies of scale, where the overall impression gained was that the IT service providers could achieve significant savings through serving multiple users simultaneously. The most telling insight was that most IT managers strongly believed that third party IT service providers can develop and maintain application software in a much more efficient and systematic way. A possible explanation is that IT outsourcing can allow organisations to concentrate on leading edge software, as they do not have to devote scarce resources to maintain or upgrade old software.

With regard to the fourth factor, shortage of technical staff, that was stimulating outsourcing, it was found that 84.6% of the respondents have come to accept this finding. Skills shortage became (and remains) a serious impediment to implementation of technical strategies, and therefore this factor will be a leading motivating factor (Currie, 1995). A similar difficulty was found in the US public administration as "government agencies had had trouble attracting and retaining IS professionals because of below-market salaries" (Lacity and Willcocks, 1997, p.87). On the ground, this means that the public sector has been facing a mounting shortage in its technical workforce, which would adversely affect its performance. Clearly, this shortage of technical skills has a direct relationship with the first reason mentioned earlier. It is also worth noting here that, during the interviews, the IT managers were specifically pointing out that "shortage of IT skills" has increased at an unprecedented rate. With these considerations in mind, it is interesting to note that in the study done by Currie (1996, p.234), it was evident that skills shortages in UK government agencies and NHS Trusts would "pose a problem for managers attempting to put in an in-house bid to run IT services." It is also believed that IT outsourcing can reduce risk and uncertainty by employing an external IT services provider and will add value to the organisation in the long term, which was a strong motivation for many organisations in the developed economies (Lacity and Hirschheim, 1993).

The most frequently cited factor in the IT outsourcing literature is cost reduction (see, for example, Mclellan et al., 1995; Willcocks and Currie, 1997; The Outsourcing Institute, 1998). It was ranked sixth in this study, although it was evident that one of the main drivers of outsourcing was cost reductions. The majority of managers (61.6%) have recognised this fact, as public sector ministries have been under tighter budget constraints, required to cut cost, increase the level of services, and provide access to new IT technologies. In a similar case, Lacity and Willcocks (1997) found government officials in the USA seriously considering the outsourcing option because of the cost containment pressure. A conclusion can be drawn at this level, that cost reduction was thought to be the most significant impetus for IS/IT outsourcing, but cost cutting is not the only motive. IT outsourcing can also "deliver business and IT service improvements as well" (Rothery and Robertson, 1995, p. 110). In a further recent study in the Australian Federal Government, Seddon (2001) argues that "cost savings through outsourcing are surprisingly hard to measure and may be unattainable" (p. 7). He found out that achieving cost savings proved to be harder than government expected because once the contract is underway, conditions change and it becomes "increasingly difficult to define, let alone measure, realised cost savings" (p.23).

Q11. Risk Factors in IS/IT Outsourcing

IT outsourcing, as a legitimate management strategy, has deficiencies and drawbacks as well as several advantages. This study has unveiled the main disadvantages to IS/IT outsourcing in the public sector of Kuwait and Table 5.59 shows the rank, mean, and standard deviation of each risk factor.

The purpose behind this question was to examine and elicit the opinions of respondents about which factors they consider as being risky when dealing with IT outsourcing. An examination of the mean values in Table 5.59 confirms that the key risk factor is "security issues/ data confidentiality", since all risk factors follow a very similar mean pattern with the only exception of "security issues" which loads considerably higher, with an average difference in magnitude of 0.30.

Table 5.59: Ranking of Risk Factors in IS/IT Outsourcing in Public Sector

Factor	Rank	Mean	Standard Deviation	Scale
Security issues (data confidentiality)	1	3.77	1.09	1-5
Ability to operate or manage new systems	*2	3.46	0.97	1-5
Loss of key IT employees	*2	3.46	1.27	1-5
Hidden cost (unspecified in the contract)	*4	3.31	1.18	1-5
Inadequate planning and management	*4	3.31	1.11	1-5
Lack of prior outsourcing experience	*4	3.31	1.03	1-5
Rapid pace of technological change	7	3.23	1.01	1-5
Loss of in-house IT capability	8	3.15	1.28	1-5
Loss of innovative ability	9	2.92	1.04	1-5
Organisation resistance	10	2.85	1.14	1-5
Loss of flexibility/control	11	2.77	1.33	1-5

*** Denotes tie for risk factor**

In fact, the figure of 62% should come as no surprise, since data confidentiality always has very high priority in the region. Indeed, this finding is consistent with that of Badri (1992); he found IS/IT security has been a prominent and top priority issue in the Arab Gulf region.

In addition, "ability to operate or manage new systems" ranked as the second risk factor while considering outsourcing. It is a common perception that an internal IT department cannot manage effectively and soundly the transition to new technological platforms. One possible explanation is that the organisation, as discussed earlier, has no internal capability to handle or

manage the new systems. "Loss of key IT employees" was ranked joint second in terms of mean value and importance. Gupta and Gupta (1992) recommend that key IT employees be involved in the IS/IT outsourcing decision. They believe that it is critical for those employees to understand that rationale and motives behind the decision. Kiely (1992) cites a study by an industrial psychologist on the best methods of communicating to employees on the progress of an IT outsourcing deal. In his study, it was found that the employees would rather hear communications from the IS executives than the president of the organisation. It is widely believed that if the key IS/IT staff are involved in the IT outsourcing deal and transition operation, such 'deep' involvement would eliminate their early departure, as they find themselves 'surplus to requirements'. In addition, the tasks and functions of key IS/IT staff may have to change in light of the new 'developments' as IS/IT outsourcing arrangement are being negotiated, and therefore their future tasks will be more directed towards co-ordination and relationship management with the IT vendor.

It was also interesting to note that "hidden cost (i.e. unspecified in the contract)" is considered to be a major drawback. A serious concern is that vendors may charge excessive fees for 'additional' services, services which would have been thought to be included in the scope of the contract (Lacity and Hirschheim, 1993). The notion of working in 'partnership' which is encouraged by vendors is also problematic (Currie, 1995) for two obvious reasons. First, it should be remembered that both organisations (client and vendors) are two usually both commercial organisations with separate profit and loss statements. Second, many outsourcing 'partnership' deals have suffered when the vendor imposed additional fees which were not in the original contract (Currie, 1995). Whilst the client organisations assume that the vendor is offering some additional work as a part of the contract, the vendors are quick to explain that these 'extras' will be charged accordingly. In addition, in the interviews, IT managers pointed out the hidden cost or excessive charges made by IT vendors for items whose costs have not been included in the initial contract.

The respondents were also pointing to "inadequate planning and management" as the next pitfall of IT outsourcing. In a study of computer-based information systems (CBIS) in the Arabian Gulf countries by Abdul-Gader and Alangari (1994, p.82), it was found that "lack of appropriate IT planning" was by far "the most significant obstacle towards a successful CBIS diffusion."

However, perhaps among the greatest risk factors, after security considerations according to the interviewees, is the loss of control and flexibility, a view noted elsewhere (Lacity et. al, 1995; McFarlan and Nolan, 1995). Particularly vulnerable is software IT outsourcing (Ang and Toh, 1998).

It is also interesting to note that the public sector in Kuwait has been encountering the same difficulties as others in the developed nations are experiencing: tighter budgets, lack of specialised skills in the government sector, downsizing of the government, and so on (Dorsi , 1998).

IT managers in the Kuwaiti public sector have clearly identified a major pitfall, where they have to contract out to only one IT vendor in some cases. This strategy has been significantly criticised by outsourcing researchers (see, for example, Lacity et al., 1994; Cross, 1995). The IT departments in many government departments are completely dependent on only one IT vendor. This strategy has its own limitations and shortcomings which affect the delivery of public IT services.

Yet a number of other issues were also considered as risks in the interviews. A senior IT director identified some: for example, obsolescence risk, where technologies that were state-of-the-art last year are behind this year; similarly, financial risk, where the possibility of financial loss when the organisation has invested in a particular IT system, but the project yields no return; and technical risk, which refers to the likelihood that it will not be possible to develop IT systems which will function technically.

Another issue under discussion by the IT managers was that the longer the duration of the contract, the greater the danger that the client organisation will find itself 'locked in', and therefore lose the flexibility they need for adaptation to 'new' or emerging IT technology during the contract life.

Q12. Vendor Selection Criteria

The attitudes and opinions of the respondents regarding the criteria for the selection of vendors were examined in this question. For a series of statements setting out the generally accepted criteria for vendor selection for the public sector in Kuwait, respondents were asked to rate

each statement on a five-point Likert-scale, rating the statement as they perceived it. Table 5.60 shows the rank, mean and standard deviation for each criterion in the public sector.

Table 5.60: Vendor Selection Criteria in Kuwaiti Public Sector

Factor	Rank	Mean	Standard Deviation	Scale
Reputation/ preference	*1	4.54	0.52	1-5
Commitment to quality	*1	4.54	0.66	1-5
Price	3	4.46	0.52	1-5
Flexible contract terms	*4	4.38	0.65	1-5
Additional value- added capability	*4	4.38	0.77	1-5
Existing relationship	6	4.08	0.49	1-5
Scope of resources	7	4.00	0.82	1-5
Location	8	3.77	0.73	1-5
Cultural match	9	3.46	1.05	1-5

*** Denotes a tie for selection criteria**

An examination of Table 5.60 shows clearly that almost all factors are important, since the agree/strongly agree ratings appear to have high loading. The only deviations from this pattern are the "cultural match" and "location" criteria. These general comments are substantiated by the results of Table 5.60 where the mean values follow a similar pattern with the only exceptions being the two aforementioned criteria. Both factors have differences in magnitude from all other criteria by an average of 0.5, which is considered high.

Two selection criteria are rated equally as the first priority in the public sector, "reputation/ preference" and "commitment to quality". The selection of reputation can be attributed to the cultural factors where reputation and fame play a big role in making decisions about the IT service providers. The vendors are seen as trustworthy by the potential clients since they are very famous brand names (for example, IBM, Microsoft, Digital, and so on). The clients believe that such famous brands have all the capability and infrastructure to have the job done in the best manner. Also equally important, "commitment to quality" has received the same mean weight. It simply means that respondents believe strongly that the vendors who commit themselves to highest quality work are to be rated highly within the selection procedure. Again, this could be included within the cultural umbrella.

"Price" was the third most important factor in the government sector in selecting the vendors. It was found that the government sector has a formal procedure where each ministry submits

its request to a central governmental committee, the 'Central Tendering Committee' (CTC). This committee has the power to select the vendors for the ministries. A number of IT managers in the public sector, during the interviews, were complaining that the tenders are awarded on the basis of the lowest competitive bids in most of the cases despite the weaknesses of such a mechanism.

Other factors, such as, "existing relationships", "location", and "cultural match" are not regarded as important as they were at the end of the list. By contrast, Klepper (1994) stressed the importance of the "cultural fit" factor or cultural match between the client and the vendor in the Western environment, where both parties can work with each other in a "comfortable relationship with shared corporate values and working practices."

From our field investigation and throughout the semi-structured interviews, we have found that there is no systematic plan or mechanism to approach the vendors as is the case in the developed countries. Michell and Fitzgerald (1997) set out a process for the client organisation to follow in order to select the "right" vendor. At the starting point, when a decision is being made to establish an IT outsourcing agreement by the senior management in an organisation, a short list of relevant vendors, by an 'open' or 'closed' procedure, is to be created. 'Open' here means that client company will advertise its needs, and the 'closed' process means that the client will approach the vendor privately. In a later stage, a Request for Information (RFI) from vendors will be required which outlines the client company's general outsourcing needs in terms of current position, objectives, IS/IT functions. Organisations will then request certain information about the IT service provider's capabilities, staffing, experience, and so on. Then this process will lead to what is so called the "invitation to tender"(ITT) document. This kind of process is very time-consuming but it has many advantages for both the client and the vendor. In Kuwait, such a process is far from being in place. To add to the picture, selection of vendors is not only based on technical factors such as functionality, but also on other non-technical attributes. Sometimes, the non-technical factors such as licensing arrangements, vendor reputation and costs are more important than technical factors when selecting IT service providers.

Cultural and Environmental Issues

The cultural factors can be described as the "unspoken factors". A number of cultural problems were cited during the interviews though their importance was not reflected in the responses in Table 5.60. For example, the IT managers in the public sector fear that IS/IT outsourcing may cause some loss of their 'authoritarian type of governance' as a result of the sharing of management responsibilities during any outsourcing arrangements with the IT service provider. It is being described as 'powersharing (ownership)'. In addition, most, if not all, of the IT vendors provide expatriate IT employees who can be described as 'newcomers' to the totally Kuwaiti environment and culture. It takes much effort and a huge amount of time to understand the 'new' culture and overcome all the communication barriers between the user/client and IT service providers. As a matter of fact, many IT failed projects in the government institutions were attributed to the 'cultural shock' and lack of understanding of the environmental factors. Moreover, some IS managers from the governmental institutions talked about the "political lobbying and favouritism" by some senior executives when contracting out for IT services to external IT vendors, which occurs at the expense of the IS development within the organisation. At the same time, there are no well-established IT vendors to provide know-how of IS/IT services in Kuwait, although there are many well-known Multi-National Corporations (MNC) in the country. Along the same lines, many respondents complained of the poor and inefficient IT services that were provided by vendors, including major international names. Those firms are limited to selling hardware, ready-made software packages, providing some IT consultation, and so on. They are not fully prepared to deal with the management side of IS/IT outsourcing arrangements, especially considering medium to long periods of time (5-10 years). One explanation is that the MNC are perhaps aware of political instability, and the cultural and social constraints inhibiting them from engaging in long-period contracts. Collins and Millen (1995) found from their empirical research that the most cited obstacle to implementation was "developing working relations between in-house and outside personnel" (p. 10). A similar concern was raised by the American organisations in regard to the 'cultural fit' between the 'newcomers' and the organisation, as to what extent the 'outsiders' may be familiar with the cultural norms of the organisation. The difficulties of integrating the newcomers with in-house personnel may be attributed to the low involvement of human resources managers in the outsourcing decisions (Collins and Millen, 1995).

The general points made here on the cultural and environmental issues are also applicable to the other two sectors, Private (Chapter 6) and Semi-Private (Chapter 7) where comment is restricted to the discussion of some additional points specific to those sectors.

Q13. Post-Contract Drawbacks

The respondents to this question rated a number of factors that can be considered as drawbacks in the post-contract evaluation of IT outsourcing projects. The respondents agree that all factors except one, "viruses brought by others", are major drawbacks in the post-contract period of IT outsourcing. These comments are confirmed by the results of Table 5.61, which indicate that all factors (with only one exception) have similar patterns. Indeed, this set of questions was used as some form of evaluation of the outcomes of IT outsourcing practices.

These questions were intended to be seen as part of post-contract performance and evaluation. Clients/customers typically have an expectation of IT service quality prior to awarding a contract to a specific vendor, the "desired performance" as Domberger et al. (2000) call it. Indeed, a necessary part of contract management involves an evaluation of the realised performance of the contract.

Table 5.61: Post-implementation Evaluation of Public Sector

Factor	Rank	Mean	Standard Deviation	Scale
Late deliveries	*1	4.31	.85	1-5
Poor communication	*1	4.31	.85	1-5
Lack of documentation	*1	4.31	.85	1-5
Low quality service	4	4.23	.83	1-5
Further sub-contracting by prime IT vendor	5	3.92	1.12	1-5
Viruses brought by others	6	2.85	1.21	1-5

*** Denotes tie for evaluation factors**

In the public sector, "late delivery" was ranked first (see Table 5.61). This seems to be a significant problem and has many negative implications for the organisations using outsourced services. During the interviews, there were a number of IT managers who expressed their fears about late delivery of IS/IT services. The government institutions were not applying any punishment mechanisms, perhaps because of lack of experience in dealing with such cases, but were looking to consider it in the future. Such limitations could be attributed to poor existing

evaluation practices. It was found by Willcocks et al. (1996, p. 338) that "poor pre-existing evaluation practices" are also present in the developed economies. Willcocks et al. also explored the importance of the attention which should be given to the relationship between "prior IT evaluation practice and the ability to assess bids from outsourcing vendors". Equally important, there has been a constant complaint of low quality service. In particular, systems software application development was probably the most persistent and serious problem in dealing with IT outsourcing, according to one interviewee who believed that "poor communication between the two parties, a serious shortage in IT skills, limited vendor technical capability, and client-vendor cultural fit are perhaps the main factors to be blamed for such low quality service". As previously mentioned, the public sector contracts are awarded on the lowest competitive bids, and inadequate IT capability may be found in many IT vendors to whom contracts have been awarded on this basis. In a number of interviews, many IT managers in the public sector were specifically pointing to the further sub-contracting by the IT prime vendor in order to meet the requirements of the client. This kind of situation has made matters worse and created more difficulties. In most of the cases, this will bring in a new vendor who will take time to adopt the new culture and to fully understand the IT functional requirements. Many issues of cultural differences will arise here and in a significant number of similar cases the IT projects have failed. It is worth noting that the need for a cultural match was regarded as an unimportant selection criterion in Table 5.60. The client, once the 'honeymoon' is over, will realise that the contract is not on his side. One final note, as Lacity and Hirschheim (1993) point out is that there is a tendency for the clients/customers, around the globe, to report success, rather than failure.

Currie (1995, p. 135) reported the problems of IT outsourcing contracts in the UK public sector organisations which were described as fivefold. They included: cost escalation, maintaining quality, over-dependence on IT suppliers, lack of supplier flexibility, and lack of management skills to manage the vendors.

To add to the picture, it was extremely difficult to assess the exact number of IT projects that failed and the exact cause of the failure through IT outsourcing arrangements in the Kuwaiti public sector. This difficulty was due to reasons, which could be classified as economic, political, cultural, environmental, and technical. The author was keen to find out any official statistics on the number of failed IT projects. However, no official published data on this subject have been found.

Of the 25 IT managers interviewed, 17 of them attributed the problems of failure to the absence of successful and effective cultural communication, and also to the differences existing between the clients and vendors (suppliers). The interviewees linked their projects' failure mainly to poor communication (i.e. ineffective cross-cultural communication) between the vendors and the clients. This line of argument is also extended globally. For example, Lyytinen and Hirschheim (1987) reported that at least half of all IT projects are failures. Some were caused by cultural differences (Wright and Wright, 1994; Thomsett, 1995). The high proportion of reported information system failures (Fortune and Peters, 1995; Flowers, 1996) indicate that there are problems associated with information systems development.

Shore and Venkatachalam (1995, p.5) argue that culture is an important factor in the development process and may " introduce its own set of problems, the consequence of which may range from project failure to delayed delivery of working systems". They further added that "culture's influence may be indirect, difficult to isolate, and difficult to measure".

As one IT executive noted to the author, "a key issue then is to consider the problems associated with the third party external IT suppliers trying to communicate their products and IT services to us, potential customers, and the problems that we, as potential clients, have tried to explain our requirements and functional needs to IT vendors". Thus, existing cultural differences are proposed as other 'candidate' reasons that can be blamed for inhibiting the effective IT transfer from the developed economies to the developing nations. One final note, as Linda (1991, p.1) states, "people of GCC developing countries are keen to adopt IT and capable and ready to invest in it"

Although it would appear that the non-technical issues are particularly significant causes of failure, as noted by Mumford (1983) who argues that the building of a successful information system includes all the design of social and organisational activities and that the failure to consider non-technical aspects is likely to lead to a mismatch between the "characteristics of the systems" and the requirements of the organisations and of the end users who use them, there are technical causes of failure as well. Managers reported many different technical causes (problems), such as wrong system specification, insufficient and inappropriate IS/IT training, lack of IT project management expertise, lack of experience in dealing with IT different outsourcing issues and how to manage successful short-term and long-term relationships, managerial and organisational problems, and so on, for their IT projects' failure.

5.8 Summary

In this chapter, we present the results of our exploratory, empirical research into the practices and views of IS/IT outsourcing in the context of the Kuwaiti public sector. The chapter provides empirical evidence on the extent to which outsourcing of various IS/IT functions is being practised, and the views of senior IT executives concerning the advantages, disadvantages and motives for IS/IT outsourcing. The primary contribution of this research is to begin developing a better understanding of the IS/IT outsourcing phenomenon in the context of Kuwait as an example of a developing country. The research provides empirical evidence for a number of conclusions concerning IS/IT outsourcing, such as, type of IT outsourcing agreement preferred, functions being outsourced, degree of IT outsourcing, outsourcing as part of future organisational strategy, the outsourcing decision-making process, contract drafting and negotiations, motivations, risk factors, vendor selection criteria, and post-contract evaluation.

A general observation based on the analysis of the sample of public sector organisations is that IS/IT outsourcing is more common than believed. In Kuwait, IS/IT outsourcing is a relatively new but fast-growing phenomenon. Until the beginning of the 1990's, Kuwaiti organisations outsourced only specific application development projects. They were reluctant to consider large-scale IT outsourcing projects due to the potential exposure of confidential data and lack of reliable IT service providers. In this survey, as many as 61.6% of the respondents had outsourced at least one IT function (excluding the purchase of packaged software). It can be said with certainty that outsourcing of IS/IT services in the public sector of Kuwait is on an increasing trend.

In most, if not all, the governmental organisations the IT departments act as a customer purchasing IS/IT services from the private sector on behalf of the rest of the organisation, but there are also the in-house providers of IS/IT functions/services.

There is growing evidence within the Kuwaiti environment to suggest that organisations are not achieving the desired benefits from IT outsourcing. IT outsourcing decisions are rarely taken with a thorough and detailed strategic perspective, and many public organisations adopt a short-term approach.

The results, as found in this study, have been mixed. Some of the IT outsourcing projects have been highly successful and their applications are in wide and regular use across the different governmental institutions, while others are not yet available in satisfactory form and are, moreover, in danger of running over budget and over time. In spite of all obstacles and problems, there are major opportunities and benefits connected with IT outsourcing. For public administration, these benefits centre around the provision of cheaper, faster and more detailed information, in a form more suited to the needs of the users.

Often, it is the case that IT outsourcing is used as an emergency measure to improve or develop a new system (e.g. Y2K problem). Unfortunately, many MIS executives in the public sector consider outsourcing as a 'quick fix solution' for a temporary problem. A likely conclusion is that financial and operational factors have to be considered for the successful outcome of any IT outsourcing deals. This is also reflected in the fact that the initiative and final decision is shifting from top management to the IT management, as more selective strategies call for function-specific or project-based expertise and experience. However, as discussed previously, the involvement of executive/top management is critical to ensure the success of IT outsourcing practices. In addition, a deep understanding of the 'real' motives behind IT outsourcing must be carried out, and continuous evaluation of both the 'actual' benefits and 'serious' pitfalls or risk factors must be done.

It is also clear that the existence of poor IS/IT management in the public sector must be given due weight. Furthermore, IT strategies were developed ad hoc, largely as a consequence of external (environmental) and internal (structural) change. There seemed to be a wide gap between strategy (the vision) and implementation (the reality). There is a strong relationship between IT outsourcing and information planning and strategy (De Looff, 1997): this concept is missing in the public organisations.

An important finding was the considerable lack of understanding among top management about IT as a potential business operation tool. As has been mentioned previously, senior management are poor also in formulating IT strategies in light of organisational objectives.

In terms of the perceived advantages of IT outsourcing, all public organisations recognised its importance. 'Resources are not available internally', 'gain access to leading-edge technology', and 'faster application development' were the most 'perceived' advantages of IT outsourcing.

Lack of IT project management expertise and high difficulty in managing the outsourcing relationship with the vendor are also considered to be an important impediment for any IT outsourcing arrangements.

Also, the perceptions concerning the risk factors have been variable. For example, loss of control over the quality of the software and the project timetable was an issue (Foxman, 1994). It was found, also, that security issues have been a major concern throughout the sector. Also, hidden cost perhaps was the second most critical pitfall of all IT outsourcing arrangements.

In terms of the vendor selection criteria, it was found that reputation/preference, commitment to quality, and price were the most important factors in choosing the vendors for the public sector.

From the evaluation dimension, many complaints were about the monitoring of, and communication with, the vendors, losing IT knowledge and control of IT projects, late delivery, and poor communication between the concerned parties. This indicates that the establishment of good vendor relationships may have moderated at least some of the managerial fears and caution over IT outsourcing.

In addition, a successful IT application requires that users are intimately involved in the development process and this is as important as competent project managers and technical skills. But this involvement may be easier to prescribe than to realise. One issue is identifying the end user. Within the Kuwaiti public administration and institutions, for example, there are multiple users. The wide range of users has led to the development of a highly complex set of relationships. Moreover, the representation of users needs is not straightforward. Indeed, users needs and aspirations vary as their level of sophistication develops or their business changes. The latter is a particularly important issue given the rapid rate of management change in contemporary public administration and the evolving impact of globalisation.

It is clear that IS/IT outsourcing is a multi-faceted phenomenon that should be studied broadly in the context of developing countries as this study is the first of its kind. The lesson is that the solutions must make sense for the particular context in which they will be implemented considering all cultural and environmental factors. Furthermore, it was found that culture plays an important role throughout the outsourcing process. Many cultural dimensions were highlighted throughout the chapter. In this context, it should be borne in mind that failures of

many IS/IT outsourcing projects were attributed to the lack of understanding of cultural 'sensitive' issues.

The fact is, however, that the drive towards 'IS/IT outsourcing' in governmental institutions is gathering momentum. The statistical analysis and the interviews have indicated the trends in IS/IT outsourcing. The interviews included one with a senior official in the Kuwaiti government, which clearly indicated the official view:

"The government is ever determined to go a step further towards IT outsourcing in the public sector, but we must be cautious while undertaking such an important and serious strategy. However, we must relinquish IS services to outsiders to alleviate some of the cost and staffing pressure."

We can predict, based on the survey analysis and interviews, including those with senior staff in the government, that IT outsourcing practices will be increasing in the foreseeable future in the public sector of Kuwait because:

1. There is a strong move towards privatisation, as the role of the private sector is booming.
2. Sophistication in IT is also increasing, which requires skills and specialities which the public sector does not have and cannot afford to develop.
3. Cutting cost remains one of the significant variables in contemplating new options (like outsourcing) in the Kuwaiti public sector.
4. The rocketing demand for IT skills and workers is a world-wide phenomenon, and the IT skills shortage is a particular problem in the public sector of Kuwait.
5. Demand by clients for more sophisticated systems requires improved technology, increasing the need for scarce skills.
6. The move towards more utilisation of IT outsourcing will gather pace to meet the pressures outlined above.

The survey analysis and interviews conducted as a part of this study have confirmed the significant need to develop guidelines. As was observed throughout the chapter, current IS/IT outsourcing arrangements and experience have been variable: either positive or negative, but never without impact.

In developing countries such as Kuwait, the introduction of IT is very recent, and its use and effect have not been systematically assessed or evaluated. Lessons from Kuwait are applicable to other developing countries that are in the process of establishing their information infrastructure.

The next chapter presents the results of the analysis of the experience of the private sector of Kuwait, setting out a series of explanations for their differing experiences and levels of performance when compared with the public sector.

Chapter Six

Analysis of the Private Sector Data

6.1 Introduction

This chapter deals with the private sector of Kuwait. It includes, as mentioned previously, three main industries: banking, investment and insurance. The Kuwaiti index for the stock market was used as the selection guideline for those industries. There was no sampling. The study has included all the banking, investment and insurance organisations available in Kuwait. The main reason for not sampling was due to the fact that a precise and comprehensive picture of IS/IT outsourcing arrangements was needed so as to portray the actual practices of such an important IT management strategy in the context of Kuwait. Additionally, in order to obtain a precise picture, there was a significant need to distribute as many of the survey questionnaires as possible and conduct interviews to serve this purpose. It should be noted here that those mentioned industries are quite important to the economy of Kuwait. They are considered to be the backbone of the Kuwaiti private sector. The analysis pattern will be similar to the previous chapter where the public sector was analysed.

The survey questionnaire consisted of six major categories. In each section, there was a variable number of questions related to the title of the category.

In addition to the Introduction and Summary, there are six sections. The second section discusses the organisational profile of respondents. The third section deals with the cross-tabulation of the results, and provides the reader with more detailed analysis of the Kuwaiti private sector. The fourth section deals with the measurement of reliability analysis. The fifth section deals with information technology department profiles and plans. The sixth section discusses outsourcing terminology and issues. The seventh section deals with the outsourcing decision process.

6.2 Profile of Responding Organisations

Several demographic characteristics of the responding private organisations are displayed in Table 6.1.

Table 6.1: Profile of Responding Private Organisations

Organisation Type	Frequency	Percentage
Private organisations:		
Banks	23	26.4
Insurance companies	5	5.7
Investment companies	14	16.1
Total Number of IS/IT staff		
< 10	18	42.9
10 to 30	3	7.1
31 to 50	9	21.4
51 to 100	8	19.0
> than 100	2	4.8
IT is part of another department	2	4.8
IS/IT Department's Reporting Level to CEO		
1 level	11	26.2
2 levels	12	28.6
3 levels	15	35.7
4 levels	3	7.1
5 levels	1	2.4
Percentage of annual budget spent on IS/IT department		
Up to 5%	23	54.8
Up to 10%	10	23.8
Up to 20%	6	14.3
Other	3	7.1
Total number of employees		
10-49	10	23.8
50-249	10	23.8
> 250	22	52.4
Total number of cases	42	100

6.3 Cross-Tabulation Analysis

The first section deals with cross-tabulation of the results so as to provide a more concise picture of the respondents in regard to their gender, job functionality, degree major, educational qualifications, and years of experience in the IS/IT profession. The main purpose is to detect a relationship between two variables that would help in the task of explanation.

6.3.1 Nationality by Gender

In terms of nationality of respondents, the sample contained individuals from several nationalities. As Table 6.2 indicates, all respondents were male. 19 of the respondents were Kuwaiti nationals (45.2 %), while 11 respondents were Arab nationals (26.2%), 5 respondents were Asians (11.9%), while five respondents were European/American (11.9%), with 2 'other' nationalities (4.76%).

Table 6.2: Nationality by Gender Cross-Tabulation

Nationality	Gender	Total
	Male	
Kuwaiti	19	19
Non-Kuwaiti	11	11
Asian	5	5
European/American	5	5
Other	2	2
Total	42	42

6.3.2 Nationality by Educational Qualification

As Table 6.3 shows, there are two respondents who are Kuwaiti nationals and have an Associate degree (4.76%), while 12 respondents who are Kuwaiti nationals have a Bachelor's degree (28.6%). For higher educational degrees, there were five Kuwaiti nationals (11.9%). For the second group, Arab nationals, there were 3 respondents who have an Associate degree (7.14%), while 7 have a Bachelor's degree (16.7%). For higher educational degrees, there was only one respondent (2.38%). For the third group, European/American, one respondent has a high school diploma (2.38%), and four respondents have a Bachelor's degree (9.5%). Finally, for the last group, 'other' who did not disclose their nationality, there were two respondents who have a Bachelor's degree (4.76%).

Table 6.3: Nationality by Educational Qualifications Cross-Tabulation

Nationality	Educational Qualification				Total
	High School	Associate Degree	Bachelor's Degree	Master's Degree	
Kuwaiti		2	12	5	19
Non-Kuwaiti		3	7	1	11
Asian		1	2	2	5
European/American	1		4		5
Other			2		2
Total	1	6	27	8	42

6.3.3 Nationality by Degree Major

As shown in Table 6.4, it was found that 3 respondents who are Kuwaiti nationals have an information systems degree (7.1%), also 10 respondents have a computer science degree (23.8%), 5 respondents have an engineering degree (11.9%), and one respondent has 'other' degree (2.4%), which could be accounting, finance, etc. For the second group, Arab nationals, 3 respondents have information systems degrees (7.14%), 4 have a computer science degree (9.52%), and finally 4 have 'other' degrees (9.52%). For the third group, the Asians, only one has an information systems degree (2.3%), 1 has an engineering degree (2.3%) and 3 respondents have 'other' degrees (7.14%). For the fourth group, European/American, 2 respondents have information systems degrees (4.76%), 2 have computer science degrees (4.76%), and one has 'other' degree. Finally, in the 'other' group there were 2 respondents, one has an information systems degree (2.3%) and the other has a computer science degree (2.3%).

Table 6.4: Nationality by Degree Major Cross-Tabulation

Nationality	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Kuwaiti	3	10	5	1	19
Non-Kuwaiti	3	4		4	11
Asian	3		1	3	5
European/American	2	2		1	5
Other	1	1			2
Total	10	17	6	9	42

6.3.4 Gender by Degree Major

As Table 5.6 shows, there were 10 respondents who are male and have an information systems degree (23.8%). Also, 17 male respondents have a computer science degree (40.5%), 6 male respondents have an engineering degree (14.3%). 9 male respondents have 'other' degree (21.4%). There were no female respondents.

Table 6.5: Gender by Degree Major Cross-Tabulation

Gender	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Male	10	17	6	9	42
Total	10	17	6	9	42

6.3.5 Job Function by Nationality

As Table 6.6 indicates, for the first group, the Kuwaiti nationals, there were 2 respondents who classified themselves as executive management (4.76%), 2 respondents identified themselves as middle management (4.76%), there were 11 respondents who classified themselves as IT managers (26.2%), and 4 respondents classified themselves as in an IS/IT senior position (9.52%). For the second group, Arab nationals, one respondent classified himself as executive management (2.4%), 4 respondents classified themselves as IT managers (9.52%), 2 respondents classified themselves as IT consultants (4.76%), and 4 respondents classified themselves as in an IS/IT senior position (9.52%). For the third group, Asian nationals, 3 respondents classified themselves as IT managers (7.14%), and 2 respondents classified themselves as in an IS/IT senior position (4.76%). For the fourth group, European/American, 4 respondents classified themselves as IT managers (9.52%) and one respondent classified himself as an IT consultant (2.4%). Finally in the 'other' group, there was one respondent who was an IT manager (2.4%) and one respondent who was in an IS/IT senior position (2.4%).

Table 6.6: Job Function by Nationality Cross-Tabulation

Job function	Nationality					Total
	Kuwaiti	Non-Kuwaiti	Asian	European/ American	Other	
Executive/Upper management	2	1				3
Middle Management	2					2
IT manager	11	4	3	4	1	23
IT consultant		2	2	1		3
IS/IT senior position	4	4			1	11
Total	19	11	5	5	2	42

6.3.6 Job Function by Degree Major

As the results show in Table 6.7, it was found that, for the first group, executive management, 2 of the respondents have a computer science degree (4.7%) and one respondent has 'other' degree (2.3%). For the second group, middle management, 2 respondents have an engineering degree (4.7%). For the third group, IT managers, 5 respondents have an information systems degree (11.9%), 11 have a computer science degree (26.2%), 2 respondents have an engineering degree (4.7%), and finally, 5 respondents have 'other' degree (11.9%). For the fourth group, IT consultant, one respondent has an information systems degree (2.3%) and 2 respondents have computer science degrees (4.7%). For the fifth group, IS/IT senior staff, 4 respondents have an information systems degree (9.52%), 2 respondents have a computer science degree (4.7%), 2 respondents have an engineering degree (4.7%), and finally, 3 respondents have 'other' degree (7.14%).

Table 6.7: Job Function by Degree Major Cross-Tabulation

Job function	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Executive/Upper management		2		1	3
Middle Management			2		2
IT manager	5	11	2	5	23
IT consultant	1	2			3
IS/IT senior position	4	2	2	3	11
Total	10	17	6	9	42

6.3.7 Job Function by Number of Years in IS/IT Profession

As Table 5.9 indicates, it was found that, for the first group, executive management, one respondent has been in the IS/IT profession between 11 and 15 years (2.3%), one respondent has been in the IS/IT profession between 16 and 20 years (2.3%), and finally, one respondent has been in the IS/IT profession for more than 20 years (2.3%). For the second group, middle management, one respondent has been in the IS/IT profession between 6 and 10 years (2.3%), one respondent has been in the IS/IT profession between 11 and 15 years (2.3%). For the third group, IT managers, one respondent has been in the IS/IT profession between 1 and 5 years, 7 respondents have been in the IS/IT profession between 6 and 10 years, 4 respondents have been in the IS/IT profession between 11 and 15 years, 7 respondents have been in the IS/IT profession between 16 and 20 years, and finally, 4 respondents have been in the IS/IT profession for more than 20 years (2.3%). For the fourth group, IT consultants, one respondent has been in the IS/IT profession between 16 and 20 years (2.3%), and 2 respondents have been in the IS/IT profession for more than 20 years (4.7%). For the fifth group, IS/IT senior staff, one respondent has been in the IS/IT profession between 1 and 5 years (2.3%), 3 respondents have been in the IS/IT profession between 6 and 10 years (7.14%), one respondent has been in the IS/IT profession between 11 and 15 years (2.3%), 4 respondents have been in the IS/IT profession between 16 and 20 years (9.5%), and finally, 2 respondents have been in the IS/IT profession for than more 20 years (4.76%).

Table 6.8: Job Function by Number of Years in IS/IT Profession

Job function	Number of years in IS/IT profession					Total
	1 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	> 20 Years	
Executive/Upper management			1	1	1	3
Middle Management		1	1			2
IT manager	1	7	4	7	4	23
IT consultant				1	2	3
IS/IT senior position	1	3	1	4	2	11
Total	2	11	7	13	9	42

6.4 Measurement of Reliability Analysis

Reliability simply means the consistency of the measurement. In 1952, Cronbach defined the reliability coefficient (α). Cronbach's alpha is used to determine the internal consistency of items within a scale for each construct. Nunnally (1978), Litwin (1995), and De Vaus (1996) suggest that an alpha value of 0.70 is sufficient to demonstrate a reasonable level of internal consistency (range from 0 to 1). Furthermore, Nunnally (1978) suggests that an alpha of 0.60 is sufficient for non-validated scales. The reliability of the multi-scale in this questionnaire was determined by using the Cronbach alpha test. Table 6.9 reports the calculated reliability coefficient (α) corresponding to each group.

Table 6.9: Reliability Value for Factor Groups

Factor Groups	Measurement	Reliability (Cronbach alpha) (α)
Motivation for IS/IT outsourcing	13 items. Reliability of motivation group	0.759
Risk analysis	11 items. Reliability of risk group	0.695
Criteria for IS/IT vendor selection	9 items. Reliability of selection criteria group	0.743
Post-contract evaluation	6 items. Reliability of post-contract evaluation group	0.869

6.5 Section II: Information Technology Department Profiles and Plans

The questions were largely directed to ascertain information about the IT department itself in each organisation that participated in the study. For example, the first question was to find out what percentage of the organisational annual budget is spent on the IT department. The next question was concerned with obtaining the complexity of the organisation of the IT department, to see the reporting levels from programmer to IT manager. The figures for Questions 1 and 2 are in Table 6.1.

Q3 Formal Corporate Business Strategy

The purpose of Question 3 was to determine if the target organisation has a 'formal corporate business strategy'. As can be seen in Table 6.10, 4 respondents (9.5%%) have indicated that their organisations do not have a formal corporate business strategy, while 38(90.5%) have indicated that their organisations have a 'formal corporate business strategy'.

Table 6.10: Availability of Formal Business Strategy

	Frequency	Per cent
No	4	9.5
Yes	38	90.5
Total cases	42	100

Q4 IT and Organisational Strategy

The relationship of IT with the overall business strategy of the organisation is examined in this question. The purpose of the question was to determine if IT has any formal links to the general organisational strategy. The respondents were provided with four different propositions.

The first choice was "IT was irrelevant to the general organisational strategy". Based on the results shown in Table 6.11, the respondents rejected this proposition, since 40 (95.2%) answered that IT is a vital element and relevant to the general organisational strategy.

Table 6.11: IT Irrelevant to Strategy

	Frequency	Per cent
No	40	95.2
Yes	2	4.8
Total cases	42	100

A second choice was "IT is an enabling tool for the strategy". As can be seen in Table 6.12, 33 (78.6%) of the respondents, the majority, disagreed that IT is an enabling tool. However, 9 (21.4%) of the respondents have agreed with this view.

Table 6.12: IT Enabling Tool for Strategy

	Frequency	Per cent
No	33	78.6
Yes	9	21.4
Total cases	42	100

The third choice was to find out if IT is believed to be " a key resource in implementing the strategy". As can be seen from Table 6.13, 25 (59.5%) have disagreed with this proposition. At the same time, 17 (40.5%) have shown agreement with the third choice.

Table 6.13: IT Key Resource in Implementing Strategy

	Frequency	Per cent
No	25	59.5
Yes	17	40.5
Total cases	42	100

In regard to the fourth choice, which was posed to determine if IT is believed to be "an integral component of the strategy", as can be seen from Table 6.14, the respondents had mixed reactions. On the one hand, 25 (50%) agreed with the statement given. On the other hand, 25(50%) have disagreed with the statement. This could be explained that IT strategy in some of the organisations in this sector (e.g. banking) is becoming an integral component of the general business strategy; however, in some other industries, IT is still moving slowly and has not yet become an integral component of the general organisational strategy.

Table 6.14: IT Integral Component of Strategy

	Frequency	Per cent
No	21	50
Yes	21	50
Total cases	42	100

Q5 Development of Formal IT Strategy

The next question was used to find out if there is a formal IT strategy developed by the private organisations. As the results show in Table 6.15, 33 (78.6%) of the respondents answered

positively that they do have an IT strategy. On the other hand, 9 (21.4%) said their organisations do not have a formal IT strategy. This figure also shows the majority of the private organisations do have an IT strategy.

Table 6.15: Formal IT Strategy Developed

	Frequency	Per cent
No	9	21.4
Yes	33	78.6
Total cases	42	100

The respondents who answered positively to the previous question were further asked to provide an insight on how often the IT strategy of their organisations is updated or revised. According to the results shown in Table 6.16, 2 (4.8%) of the organisations appear to update their IT strategy 'rarely', 11 (26.2%) appear to update on an annual basis, while 9 (21.4%) revised "every 2-3 years". In addition, 5 (11.9%) of the organisations appear to update their IT strategy 'every 4-5 years'. As 15 (35.7%) of the respondents said IT strategy is updated or revised "as required", this could be interpreted as no formal or systematic plan.

Table 6.16: IT Strategy Updating and Revision

	Frequency	Per cent
Rarely	2	4.8
Every year	11	26.2
Every 2-3 years	9	21.4
Every 4-5 years	5	11.9
More as required	15	35.7
Missing	0	0
Total cases	42	100

Q6 IT Awareness

The next question surveyed the opinions of respondents on whether their organisations are aware about the latest developments in the IT industry. The use of a semantic interval scale provided a clear and concise picture of the response patterns for this question. From a visual examination of Table 6.17, it can be concluded that the majority of the private organisations have a high awareness about the latest developments in the IT sector. The results in Table 6.17 show that 5

(11.9%) of the respondents have "moderate awareness", 8 (19 %) of the respondents answered with level "5", and almost half of the respondents, 19 (45.2%) have replied with level "6", which is one level before great awareness. Also, five of the respondents (11.9%) have gone one level up, which is "great awareness". These figures clearly indicate that the IT awareness in the private sector is much more than in the public sector.

Table 6.17: IT Awareness

Choices	Frequency	Per cent
2	0	0
3	1	2.4
Moderate Awareness	5	11.9
5	8	19.0
6	19	45.2
Great awareness	5	11.9
Missing	4	9.5
Total cases	42	100

Q7 Methods for Obtaining IS/IT Services

Table 6.18 presents the methods that private organisations employ in order to obtain IS/IT services. The internal computer department of the organisations appears to be the most widely used method of obtaining the IS/IT services. The other options (e.g. hiring temporary staff, request IT service from outside) have also been practised to a certain degree.

Table 6.18: Internal Computer Department for IS/IT services

Choices	Frequency	Per cent
Never	1	2.4
Rarely	5	11.9
Sometimes	8	19
Often	11	26.2
Always	17	40.5
Total cases	42	100

Q8 Role of IT Department

The respondents were asked to indicate the role that the IT department plays in their organisations. The results are presented below (see Table 6.19) which shows the sample is divided between the two response options. A proportion of 24 (57.1)% considers the IT department to have a strategic role (i.e. core) in the wider organisation, while the remaining 18 (42.9%) consider it to have a supportive/operational (i.e. non-core) role.

Table 6.19: Role of IT department

	Frequency	Per cent
Core	24	57.1
Non Core	18	42.9
Total cases	42	100

Q9 Overall Growth Stage of IT

This question was posed for the responding IS/IT executives to select one of four descriptions that best characterised the overall growth stage of IS/IT development in his/her organisation (Nolan, 1979). It can be seen from the Table 6.20 that most of the private sector organisations belong to control and maturity stages.

Table 6.20: Overall Growth Stage of IT

IS Development Stage	Frequency	Per cent
Initial stage	0	0
Expansion stage	9	21.4
Control stage	15	35.7
Maturity stage	18	42.9
Total cases	42	100

Q10 Difficulties in Delivery of IS/IT Services

The rationale behind the inclusion of this question was to examine the efficiency and effectiveness of the IT departments of the respondent organisations in the provision of their services. As demonstrated in Table 6.21, 39 (92.9%) of the respondents have experienced difficulties in the

way that the IT services were provided from their IT departments, while 3 (7.1%) have not experienced any difficulties in the delivery of IS/IT services.

Table 6.21 Difficulties in Delivery of IS/IT Services

	Frequency	Per cent
No	3	7.1
Yes	39	92.9
Total cases	42	100

The respondents were further asked to indicate the factors that were contributing to these difficulties. A breakdown of the types of difficulties that these organisations face in the provision of IT services is provided in Figure 6.1. From a visual inspection of the figure, it can be asserted that to some extent all factors (e.g. hardware systems, software systems, expertise/ IT skills, etc) are contributing in a very similar pattern to the IT delivery difficulties of the organisations.

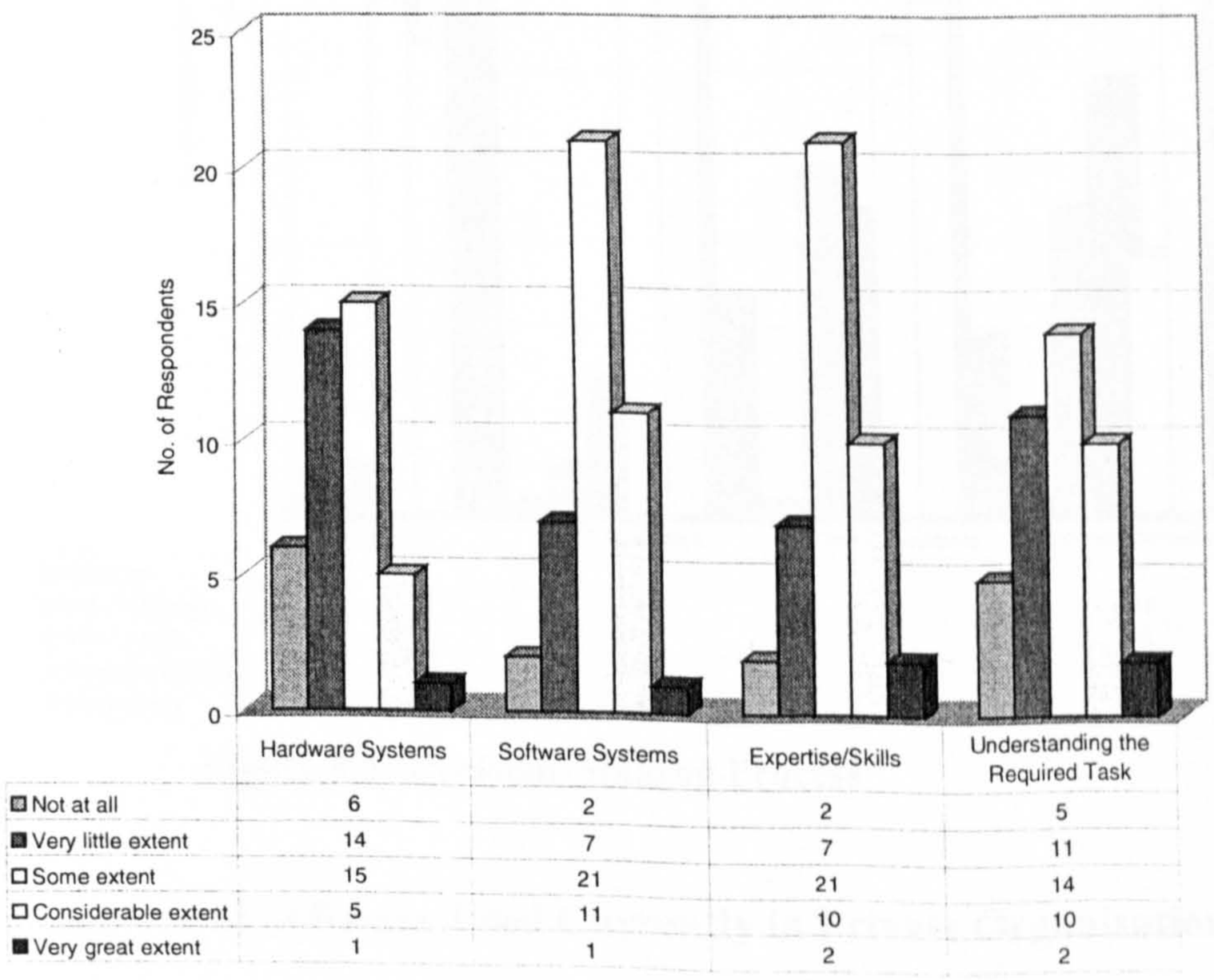


Figure 6.1: Difficulties in Delivery of IS/IT services

Q11 Decision-Making Process

The decision-making process of the executives/top officials/management in the private organisations as they make strategic decisions in regard to IT was examined, with four different alternatives provided. The analysis of the responses is in Figure 6.2. The first point that emerges from the analysis is that there is a great deal of consultation with the IT department before making any strategic decision. A definite trend is evident that it is the IT departments who initiate any IT strategic decisions. This is similar to the pattern in the other two sectors.

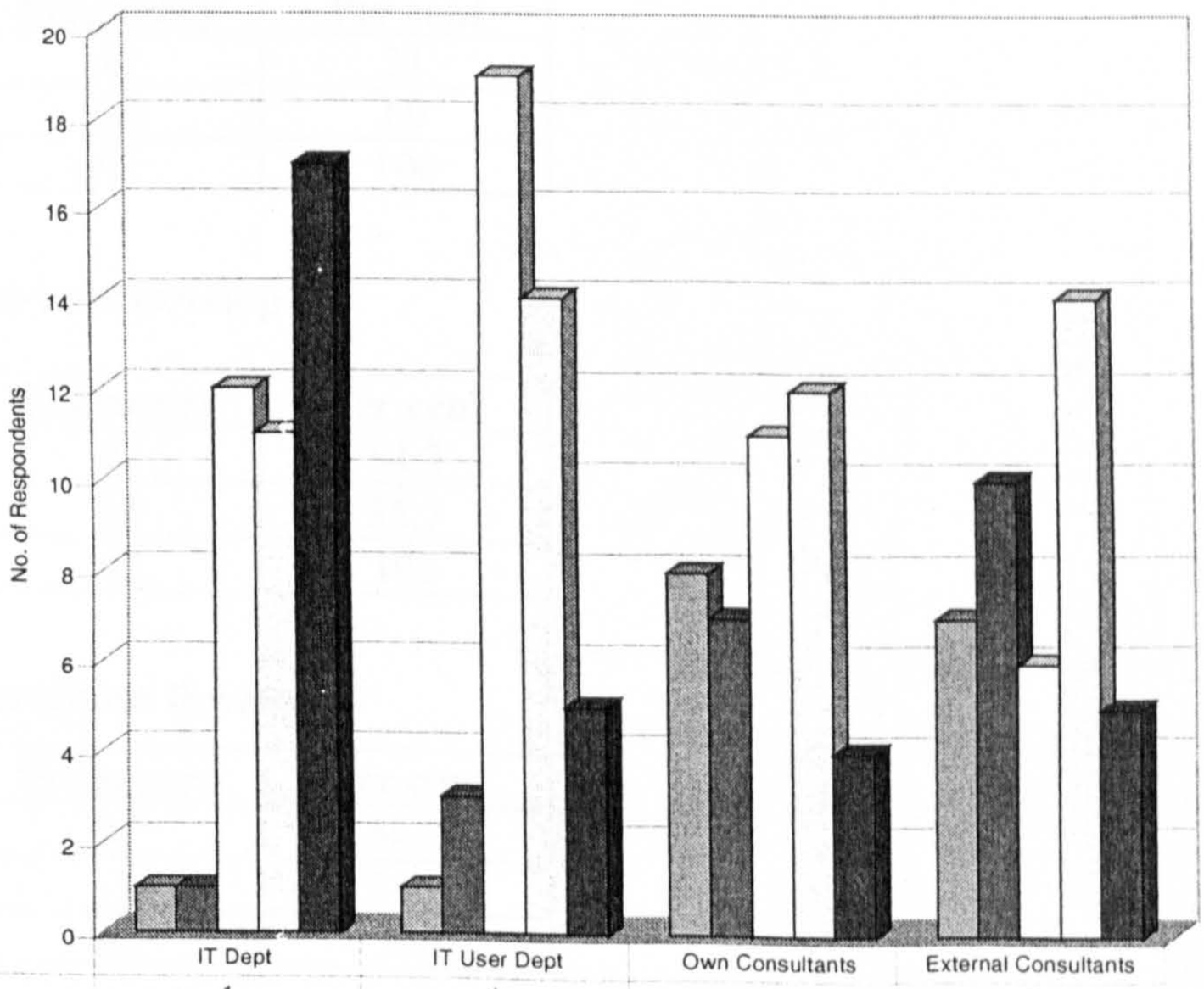


Figure 6.2: Decision-Making Process

Q12 Sources of Software Used Currently in Private Organisations

The majority of the organisations use in-house developed software and ready-packaged software, as summarised in Table 6.22 and Table 6.23, 29 (69%) for each source. Other choices provided to the respondents such as end-user development and consultant development were not strongly supported (see Tables 6.24, 6.25, 6.26). The only interesting point which emerged was that vendor

software development was picked up by 28 (66.7%) which clearly indicates the trend towards IT outsourcing.

Table 6.22: In-house Software Developed

	Frequency	Per cent
No	13	31
Yes	29	69
Total cases	42	100

Table 6.23: Packaged Software

	Frequency	Per cent
No	13	31
Yes	29	69
Total cases	42	100

Table 6.24: End-user Developed

	Frequency	Per cent
No	27	64.3
Yes	15	35.7
Total cases	42	100

Table 6.25: Consultant Developed

	Frequency	Per cent
No	37	88.1
Yes	5	11.9
Total cases	42	100

Table 6.26: Vendor Developed

	Frequency	Per cent
No	14	33.3
Yes	28	66.7
Total cases	42	100

Q13 Keeping Up with IT Developments

The last question in Section II of the questionnaire introduces a general statement by which the opinions of the respondents are tested using an attitudinal interval scale. It was designed to determine if respondents felt it was difficult for organisations to keep up with the developments in

the IT industry. Most of the respondents (32,76.2%) agreed with the proposed statement. Of the remainder, 7 (16.6%) have either slightly disagreed/strongly disagreed, and 3 (7.1%) were neutral (see Table 6.27). One of the justifications for IS/IT outsourcing growth is that private sector organisations which do not specialise in IT can no longer keep up with the high rate of change in the industry, and should therefore let a specialist assume the role of IT service provider. With most respondents agreeing with this statement, they should be receptive to this as a business reason for IS/IT outsourcing.

Table 6.27: Keeping up with IT Developments

	Frequency	Per cent
Strongly disagree	4	9.5
Slightly disagree	3	7.1
Neutral	3	7.1
Slightly agree	14	33.3
Strongly agree	18	42.9
Total cases	42	100

6.6 Section III: Outsourcing Terminology and Issues

This section consisted of 11 questions. The section started by presenting a simple definition of IS/IT outsourcing in order to make sure that the meaning was clear and understandable for all respondents. The general aim of the section is to address some important issues in IS/IT outsourcing.

Q1 Awareness of Outsourcing and Meaning

This question was used to assess what the respondents' awareness was of IT outsourcing. Almost all (90.5%) of the respondents indicated that they had heard the term "outsourcing" and knew what it meant. Only 2 (4.8%) had never heard the term before. The 'other' 2 (4.8%) had heard of outsourcing but were not sure what it was. It is reasonable to assume that in order to have an interest in responding to the survey questionnaire in the first place, respondents would need to be aware of what outsourcing is. The results of this question are useful as confirmation that almost all questions were answered by people who felt they knew what IT outsourcing was (see Table 6.28).

Table 6.28: Awareness of Outsourcing and Meaning

	Frequency	Per cent
Never heard	2	4.8
Aware and knew meaning	38	90.5
Heard but not sure of meaning	2	4.8
Total cases	42	100

Q2 Usefulness of Sources of Information on IT Outsourcing

This question was designed to find out the sources of information on the topic of IT outsourcing. Many choices were provided to the respondents to choose from. The analysis of the data revealed that seminars and IT conferences were the major source of information. Other sources were also indicated as useful and important sometimes, such as trade publications, Internet, employer communications and personal experience (see Figure 6.3).

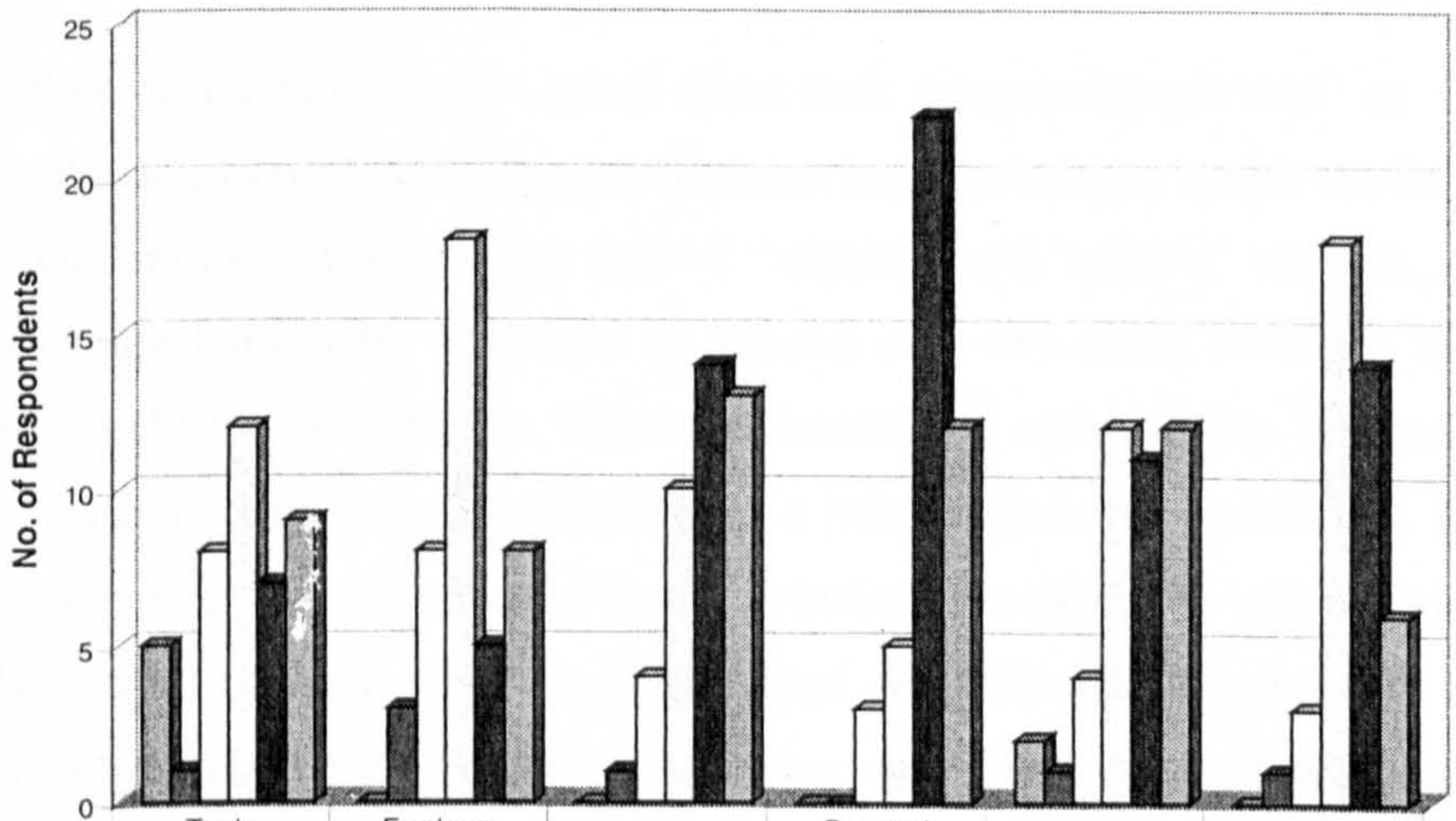


Figure 6.3: Usefulness of Sources of Information on IT Outsourcing

Q3 Outsourcing of IS/IT Functions, Total or Partial

The level and extent of agreement of the respondents regarding the outsourcing of IS/IT functions were examined in Question 3. The respondents were asked whether they felt outsourcing could be an appropriate business decision. The results of this question are significant. There were two choices provided, total outsourcing and partial (i.e. selective) outsourcing. As Table 6.29 shows, the results were mixed.

A majority of respondents 26 (61.9%) did not agree or strongly disagreed with total outsourcing, while 8 respondents were neutral (19%). The rest of the respondents, 8 (19.1%) were favouring total outsourcing, although they are a minority. It should be emphasised here, however, that total outsourcing is mainly not favoured because it is often the case that the total outsourcing process involves the transfer of IT personnel, assets and other responsibilities from the outsourcing organisation to the vendor.

Participants in follow-up interviews were asked about their disapproval of 'total' or 'strategic' outsourcing deals. Responses tended to centre around two major problems, which can be identified as security and data confidentiality, and the lack of 'capable' and 'reliable' vendors. As one IT manager in a reputable bank said, " People in Kuwait are very much reluctant to do total outsourcing. It is mainly for two reasons. First and foremost is security. We obviously cannot allow our entire 'valuable' data to be handed over to a third party service provider". He further said "There is no way ever that the board of directors and top management will endorse such an IT strategy". The second problem which he highlighted was "No robust vendor in Kuwait is capable of taking over the responsibilities of total outsourcing". The IT manager was also pointing out that they have received in the past proposals from some American vendors to do "total outsourcing through networks". He elaborated by saying " We did receive a number of proposals of many reliable and reputable vendors in the USA to do total outsourcing through satellite links and we in Kuwait would become a fully bank-branched network and they would manage everything for us". He added, "Of course we rejected such proposals as we cannot send our sensitive data to the USA or elsewhere." The IT manager highly welcomed the 'selective outsourcing' approach and said "This is what we need!".

Another IT senior staff member commented on the same issue, saying that "No one in Kuwait has ever dealt with total outsourcing in any sector, therefore nobody wants to be a pioneer and go forward with this significant and revolutionary step".

For the second option (i.e. partial IT outsourcing), as can be seen in Table 6.30, a majority of respondents 36 (85.7%) agreed or strongly agreed that partial outsourcing could be an appropriate business decision, 1 (2.4 %) was neutral, and the rest, 5(11.9%), were against selective IT outsourcing. The fact that a majority of the respondents agree that IT outsourcing could be a business decision is an important point. In the light of these figures, one could understand why the IT managers favour partial IT outsourcing. By so doing, they still hold the main IT management functions inside their organisations, at the same time leveraging their difficulties and shortcomings to vendors, as well as finding a solution to the severe shortage of IT manpower. In summary, these results should provide a pragmatic picture of the current situation.

Table 6.29: Total IT Outsourcing

	Frequency	Per cent
Strongly disagree	8	19
Slightly disagree	18	42.9
Neutral	8	19
Slightly agree	7	16.7
Strongly agree	1	2.4
Total cases	42	100

Table 6.30: Partial IT Outsourcing

	Frequency	Per cent
Strong disagree	4	9.5
Slightly disagree	1	2.4
Neutral	1	2.4
Slightly agree	20	47.6
Strongly agree	16	38.1
Total cases	42	100

Q4. Past Experience with IT Outsourcing

This question was designed to determine if the organisations had any experience in dealing with IT outsourcing in the past. As the results show in Table 6.31, 34 (81%) of the respondents have had

some experience and dealt with IT outsourcing previously. This figure highlights the fact that the private sector of Kuwait has been active in dealing with IT outsourcing.

Table 6.31: IS/IT Outsourcing Past Experience

	Frequency	Per cent
No	8	19
Yes	34	81
Total cases	42	100

Q5 Type of IT Outsourcing Agreement Preferred

This question had as its aim to identify the type of outsourcing agreement that each organisation under investigation has practised previously. There were six choices provided to choose from. The three most popular types of IS/IT outsourcing appear to be 'selective outsourcing', 'education and training', and 'project-based outsourcing' as presented in Tables 6.32, 6.33, 6.34, 6.35, 6.36. As discussed previously, the concept of total outsourcing agreement is not favoured in the private sector organisations. 37 (88.1%) of the respondents favoured the selective outsourcing agreement. The second most accepted type of IT outsourcing agreement is education and training, which captured 36 (85.6%). 30 (71.4%) of the respondents favoured the project-based outsourcing agreement as a third most accepted type of IT outsourcing,

Table 6.32: Total IT Outsourcing

	Frequency	Per cent
No	39	92.9
Yes	3	7.1
Total cases	42	100

Table 6.33: Selective Outsourcing

	Frequency	Per cent
No	5	11.9
Yes	37	88.1
Total cases	42	100

Table 6.34: Project-Based Outsourcing

	Frequency	Per cent
No	12	28.6
Yes	30	71.4
Total cases	42	. 100

Table 6.35: Function-Based

	Frequency	Per cent
No	32	76.2
Yes	10	23.8
Total cases	42	100

Table 6.36: Training and Education

	Frequency	Per cent
No	6	14.3
Yes	36	85.7
Total cases	42	100

Q6 IT Functions Previously Outsourced (from 1991)

The following question was designed to find out what IT functions have been outsourced in the private organisations in the past 9 years (following the liberation of Kuwait in 1991 from the Iraqi invasion). Tables 6.37, 6.38, 6.39, 6.40 provide a detailed view about the extent of outsourcing arrangements that took place in the organisations under investigation. Almost all the IT functions were outsourced for the majority of the organisations. However, for the Kuwaiti private organisations, the most common task to be outsourced is systems/software development and maintenance, education and training, followed by network and communication management.

A response from an interviewee indicated that software development and maintenance is the most common outsourced function within the sector. When asked about the rationale behind such strategy, he stated that "There are many ready-made software packages around the globe for the business industries like banking, insurance, real estate, investment, and so on. It is easy to find a match for our business requirements and therefore we buy the software and with some customisation adapt it to our business and environmental needs. Even if we do not find exactly what we are looking for, it would not be a hard job to ask for a development or a modification of

the software since the processes and structures of the banking and insurance organisations are well defined and known globally". According to Grover et al. (1998, p. 80), applications development and maintenance, systems operation, and networks/ telecommunications management are the main outsourced functions in the developed nations.

Additionally, it is quite interesting to note that the private sector 'believes' strongly in education and training. All the interviewees have been to some training courses and IT seminars. They believe that this is part of the process of being well aware of IT industry developments and raising awareness among the IS/IT staff.

The third most common outsourced function within this sector is network and communication management. All the Kuwaiti banks have on average 10-15 branches around Kuwait, and some of them have international branches. The branches are interconnected and highly secure, with the ATM card machines using a reliable network system.

Table 6.37: Network Management

	Frequency	Per cent
No	15	35.7
Yes	27	64.3
Total cases	42	100

Table 6.38: Systems/Software Applications Development and Maintenance

	Frequency	Per cent
No	10	23.8
Yes	32	76.2
Total cases	42	100

Table 6.39: Training and Education

	Frequency	Per cent
No	12	28.6
Yes	30	71.4
Total cases	42	100

Table 6.40: Technical Support Functions

	Frequency	Per cent
No	30	71.4
Yes	12	28.6
Total cases	42	100

Q7 Degree of IS/IT Outsourcing

The degree of IT outsourcing services in the organisations was examined in Question 7. As can be seen from Table 6.41, the responses follow a normal distribution, something that implies a modest result. To provide a more concise explanation for this question, the mean value will be discussed. The mean score is 3.81. Considering that the measures were taken on a 7-point interval scale then it can be safely said that there is a relatively high degree of IT outsourcing within the organisations. In the results presented in Table 6.41, most of the responses centre on choices 3 and 4, which makes up the majority, 24 (57.1%).

Table 6.41: Degree of IS/IT Outsourcing

	Frequency	Per cent
None	1	2.4
2	6	14.3
3	10	23.8
4	14	33.3
5	6	14.3
6	3	7.1
Very High	2	4.8
Total cases	42	100

Q8 IT Outsourcing Plans

The next question was used to find out if the private organisations are intending to outsource some of their IS/IT activities as part of their future plans. As is demonstrated in Table 6.42, 28 (66.7%) of the respondents answered positively, something that indicates a positive inclination towards IS/IT outsourcing.

Table 6.42: IT Outsourcing Plans

	Frequency	Per cent
No	14	33.3
Yes	28	66.7
Total cases	42	100

Q9 IT Outsourcing as Part of Future Organisational Strategy

This question was to determine if IT strategic outsourcing was a part of the IT future strategy in the organisation. As the results show in Table 6.43, 32 (76.2%) of the respondents said that strategic outsourcing is a part of the IT future strategy, and something that is always on the top of the agenda for any IT executive to consider as a viable option.

Table 6.43: IT Outsourcing as Part of Future Organisational Strategy

	Frequency	Per cent
No	10	23.8
Yes	32	76.2
Total cases	42	100

Q10 Preferred Type of Outsourcing Relationship

The purpose of the question was to determine what type of relationship the organisations prefer. As is illustrated in Table 6.44, most organisations, 33 (78.9%) of the respondents prefer a short-term relationship (i.e. 1-3 years). On the other side, a few, 9 (21.4 %), prefer an over-3 years type of relationship. The main reason for the short-term (i.e. trial and error approach) to IT outsourcing arrangements is the poor definition of role and service which permeates the practice of IT outsourcing. Given uncertainty in both business and IT over time, together with the significant growth and advancement in the IT industry, the main choice is to prefer a short-term relationship (1-3 years) as business requirements and IT may change enormously.

Table 6.44: Preferred Type of IT Relationship

	Frequency	Per cent
1-3 Years	33	78.6
Over 3 years	9	21.4
Total cases	42	100

Q11 Data Security as a Major Outsourcing Concern

The last question of this section surveyed the opinions of respondents on whether the issue of data confidentiality (e.g. security) is a matter of major concern when they are discussing the possibility of IT outsourcing arrangements. As shown in Table 6.45, the majority of the respondents 35 (83.3%) consider the issue as critical and significant, while 6 (14.3%) of the respondents were neutral, and one respondent slightly disagreed (2.4%).

Table 6.45: Security Issues

	Frequency	Per cent
Slightly Disagree	1	2.4
Neutral	6	14.3
Slightly agree	6	14.3
Strongly agree	29	69.0
Total cases	42	100

6.7 Section IV: Outsourcing Decision Process

This section discusses the results on the attitudes/opinions of the respondents on the IT outsourcing decision-making process.

Q1 Initiation of Decision on IS/IT Outsourcing

The purpose of this question was to identify who initiates the IS/IT outsourcing decisions. As is demonstrated in Tables 6.46, 6.47, 6.48, the IT managers mostly initiate the decision on IS/IT outsourcing, as 29 (69%) respondents approved it (see Table 6.47). Also, it can be seen in Tables 6.46, 6.48, that neither the top management nor the MIS executives have any major decision initiation on IT outsourcing.

The lack of top management involvement and support is always an issue of concern. The information technology literature is replete with studies that emphasise the importance of top management support in making progressive use of IT (Grover and Goslar, 1993; Keil et al., 1998).

A director of the MIS department of a large bank stressed the need to involve the top management in the IT outsourcing decisions, "We have to come together ...so that we realise the potential capabilities of IT and how it can be deployed. It is important to ensure that top people know what kind of applications can be built and developed and how they can be of value to the organisation".

It is obvious that the two sectors are facing a common problem, as lack of top management involvement and support is an issue of concern in both public and private sectors. However, what is interesting to note is that most of the respondents from the private sector are expatriates who have been able generally to 'convince' the top management of their decisions on IT-related issues. Also, the private sector is more interested in investing in IT infrastructure, and therefore the IT managers and senior IT staff in the private sector have more influence and impact than their peers in the public sector.

Table 6.46: Top Management

	Frequency	Per cent
No	27	64.3
Yes	15	35.7
Total cases	42	100

Table 6.47: IT Managers

	Frequency	Per cent
No	13	31
Yes	29	69
Total cases	42	100

Table 6.48: MIS Executive

	Frequency	Per cent
No	25	59.5
Yes	17	40.5
Total cases	42	100

Q2 Multiple Vendors Working Simultaneously in Two Different IT Functions

This question was used to find out if the organisations have ever used multiple vendors working simultaneously in two different IT functions. 28 (66.7%) of the respondents have considered this in the past, while 14 (33.3%) of the respondents answered negatively (see Table 6.49).

Table 6.49 Multiple Vendors Working Simultaneously

	Frequency	Per cent
No	14	33.3
Yes	28	66.7
Total cases	42	100

Q3 Reasons for Simultaneous Working

The respondents who answered positively on the previous question were further asked to provide an insight on the reasons behind that decision. Four different choices were offered to the respondents. As the results show in Tables 6.50, 6.51, two of the proposed statements were accepted as being the rationale behind that decision. The first accepted rationale was "safeguard against being dependent upon a single vendor" which captured 29 (69%%). The second was "more competition and innovation which results in a better output" which was by accepted by 25 (59.5%). The respondents did not accept the other two statements. One interpretation of these figures is that, despite the organisation's desire to obtain leading-edge technology, at the same time they do not want to become dependent on only a single vendor. It seems also that the private sector believes strongly in competition.

The public and private sectors have both accepted the rationale "safeguard against being dependent upon a single vendor" behind using multiple vendors working simultaneously in two different IT functions. However, they disagreed on the second reason. The public sector selected

"have more access to world-class technology and expertise" while the private sector selected "more competition and innovation which results in a better output". This could be explained in light of the background of each sector. The public sector's main concern is to get the IT leading-edge technology, and it does not really feel the pressure of competitiveness. On the other hand, the private sector, is also concerned with obtaining quality technology, but believes strongly that a competitive environment will produce a better end product.

Table 6.50: Safeguard Against Being Dependent Upon Single Vendor

	Frequency	Per cent
No	13	31
Yes	29	69
Total cases	42	100

Table 6.51: More Competition and Innovation

	Frequency	Per cent
No	17	40.5
Yes	25	59.5
Total cases	42	100

Q4 Legal Representation

The following question was used to determine if the organisations have hired a legal representative to represent them as part of the decision-making process. The majority (23, 54.8%) of the respondents have indicated that a legal representative would be hired in any outsourcing decision-making process, while 19 (30.8%) of the respondents replied they did not have a legal representative in any outsourcing deals (see Table 6.52).

Another difference between the two sectors can be recognised in this question. On the public sector side, the respondents have indicated that no legal representative would be hired in any outsourcing decision-making process. On the private sector side, the respondents have indicated that a legal representative would be hired in any outsourcing decision-making process. This probably could be interpreted as the private sector being more experienced in dealing with outsourcing issues than the public sector.

Table 6.52: Legal Representation

	Frequency	Per cent
No	19	45.2
Yes	23	54.8
Total cases	42	100

Q5 Improvement of IT Department Before Outsourcing Decision

The findings of Question 5, as presented in Table 6.53, indicate that the great majority, 35(83.3%), considered improving their own IT departments before any attempt is made to outsource IT functions and activities.

Table 6.53: Improvement of IT Department Before Outsourcing Decision

	Frequency	Per cent
No	7	16.7
Yes	35	83.3
Total cases	42	100

Q6 Outsourcing Contract Draft and Revision

This question was aimed at finding out who usually drafts and revises the IT outsourcing contract. The survey results clearly point out that IT managers are those generally responsible for drafting and revising the contract for all outsourcing practices, with 25 (59.5%) respondents agreeing (see Tables 6.54, 6.55). It is worth noting that only 18 (42.9%) of respondents agreed that their legal/law departments participate in the drafting and revising outsourcing contracts. The legal/law departments clearly play a smaller role.

Table 6.54: IT Managers

	Frequency	Per cent
No	17	40.5
Yes	25	59.5
Total cases	42	100

Table 6.55: Legal/Law Department

	Frequency	Per cent
No	24	57.1
Yes	18	42.9
Total cases	42	100

Q7 Legal Disputes and Legal Action

The respondents were asked how they would settle their legal disputes in case of such a possibility. The results, as presented in Table 6.56, show that a bare majority of organisations in the case of legal disputes with the vendor would prefer to settle legal cases locally, as 22 (52.4%) favoured this, despite the fact that the local legal system is not well-prepared for IT-related issues. However, a larger majority, 27 (64.3%) of the organisations prefer to address these legal issues in a specific way when the contracts and agreements are drafted with IS/IT vendors (see Table 6.57). At the same time, where respondents were asked if they would like to settle their cases in an international legal system (a neutral country) or the host country of the IT vendor, there was almost universal rejection of both possibilities, as shown in Tables 6.58, 6.59. The minority view was supported in an interview with an American IT manager in a reputable Kuwaiti bank who said, when asked where he would he prefer to settle his department legal disputes, "I do not mind taking the case to any legal system as long as I get my rights". Furthermore, the manager believes that since the local legislation system is not well-suited for IT related issues, taking legal cases to any court system would be a valid course of action.

It is worth noting that there is a cultural difference which has been recognised here. On the one hand, almost all the Kuwaiti managers in both sectors have rejected the idea of resorting to legal actions against the vendors, either in the vendors' countries or in a neutral court system. They would rather settle the legal cases in Kuwait although they acknowledge the fact, as mentioned previously, that the Kuwaiti legal system is not well-prepared for any IT-related issues. On the other hand, all the foreign participants in this study supported the issue of taking legal actions to any court system in any part of the world whether that would be in the vendor's country or in a neutral court system. As one Indian IT manager in an investment organisation said, "We –as an IT department- would rather pursue our rights in any legislation system, no matter in the USA or elsewhere. The local Kuwaiti system is very weak, and cannot understand all the technicalities surrounding the complex IT issues. But, I have to emphasise here that the final decision is with the

top management and the executive authorities in the organisation, who must decide the final destination". The other interesting point which was agreed upon by all the participants was that resorting to legal action would be the last course of action taken, because though conflicts might be resolved, relationships between the concerned parties are likely to be severely impaired.

Table 6.56: Local Legal System

	Frequency	Per cent
No	20	47.6
Yes	22	52.4
Total cases	42	100

Table 6.57: Usually Specified in the Contract Signed by the Two Parties

	Frequency	Per cent
No	15	35.7
Yes	27	64.3
Total cases	42	100

Table 6.58: International Legal System

	Frequency	Per cent
No	39	92.9
Yes	3	7.1
Total cases	42	100

Table 6.59: Host Country of the Vendor

	Frequency	Per cent
No	41	97.6
Yes	1	2.4
Total cases	42	100

Q8 Right Contract or Agreement as Key Factor

As is demonstrated in Table 6.61, the majority of respondents (31, 73.8%) are inclined positively towards the statement that the "Key factor for establishing a successful outsourcing relationship is to have the right contract or agreement". This conclusion is supported by the mean value, as presented in Table 6.60. A mean value of 4.19 in a 5-point Likert scale is considered to be a valid indicator of a reliable result.

Table 6.60: Mean Value and Standard Deviation Values

Number of respondents	42
Mean	4.19
Standard Deviation	1.02

Table 6.61: Right Contract as Key Factor

	Frequency	Per cent
Strongly disagree	1	2.4
Slightly disagree	1	2.4
Neutral	9	21.4
Slightly agree	9	21.4
Strongly agree	22	52.4
Total cases	42	100

Q9 Need for Arabisation of IT Systems

This question was addressed to find out if there is a real need for 'Arabisation' of all systems implemented in the organisations. As the results show in Table 6.62, 17 (40.5%) of the respondents think it is needed. On the other hand, the majority (25, 59.5 %) of the respondents responded that there is no real need to 'Arabise' the IT systems in the private sector organisations. This contrasts with the public sector response, where the majority think it is needed.

Table 6.62: Need for Arabisation of IT Systems

	Frequency	Per cent
No	25	59.5
Yes	17	40.5
Total cases	42	100

Q10 Reasons or Motivations for IS/IT Outsourcing

For a series of statements setting out the generally accepted advantages and disadvantages of IS/IT outsourcing or reasons for outsourcing, respondents were asked to rate each statement on a 5-point Likert-scale specifying the statement's importance as they perceived it. Table 6.63 shows the rank, mean, standard deviation, and scale of each motivating factor.

Focusing on the top 5 key factors, the rationale behind each factor is set out below to put the findings in the context of the Kuwaiti business private setting, based on additional information gained from the interviews. It should be noted, however, that many issues overlap or indirectly complement one another (Palvia and Basu, 1999).

The percentages quoted in the following discussion indicate the number of respondents who agreed or strongly agreed with the relevant statement, the mean is a weighted calculation with greater weight given to strongly agree. The factors are ranked according to the mean.

Table 6.63: Ranking of Motivating Factors in Private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Shortage of technical staff	1	3.83	1.27	1-5
Resources are not available internally	2	3.81	1.21	1-5
Faster application development	*3	3.74	.96	1-5
Gain access to leading-edge technology	*3	3.74	1.01	1-5
Rapid pace of technological change	5	3.69	1.02	1-5
Reduce and control of operating cost	6	3.60	1.19	1-5
Enhancement of IT staff expertise	7	3.50	.97	1-5
Improve core business competence	*8	3.38	1.15	1-5
Avoiding of obsolescence risk	*8	3.38	1.08	1-5
Enhance flexibility and responsiveness	10	3.17	1.03	1-5
Increased availability of service providers (vendors)	11	3.38	1.15	1-5
Cash infusion	12	2.69	.87	1-5
Share risk	13	2.55	1.13	1-5

*** Denotes a tie for motivating factor**

Respondents were asked to rank the reasons most often quoted in the literature for IS/IT outsourcing. It was notable that "shortage of technical staff" was ranked the most prominent factor in motivating IT outsourcing in the Kuwaiti private sector. In fact, most of the respondents (71.4%) agreed that this factor is the most important. This kind of technical shortage could be in the form of lacking advanced computer programmers (e.g. C++, Java, and COBOL), data base administrator (DBA), senior system analysts, software application developers, etc. This finding was supported previously by Collins and Millen (1995), who found from their empirical research that the most cited benefits of IT outsourcing, according to the top American firms, was benefiting

from the "skills of outside staff" (p. 11). There is a continuing difficulty of finding qualified and skilled IT manpower elsewhere (Apte, 1992; Huang and Yang, 2000). Research by Rosenthal and Jategaonkare (1995) found that the number of students interested in the Management Information Systems (MIS) discipline was decreasing. On the other hand, the demands for skilled human resources are rapidly increasing. Diromualdo and Gurbaxani (1998) point out that IS/IT outsourcing is playing an important role in filling the gap in the availability of the skills and capabilities necessary to realise the potential of IT.

The second motivating factor was "resources are not available internally", which attracted 66.7% of the respondents' views. Organisations often outsource because they do not have access to the required resources within the organisation, which can be software, hardware or manpower. In fact, IS/IT outsourcing is seen as a panacea for many technological difficulties. This was discussed in depth during the interviews, and the private sector complained of the "lack of high level IT expertise and knowledge" which is available in the Kuwaiti pool.

Another important dimension that captured a high level of agreement was "faster application development". Indeed, a similar majority (66.6%) of the respondents agreed on that factor. It can be argued that IT service providers have the capability to produce computer software applications in a faster and more efficient way than in-house developers. This can be attributed to the economies of scale, where the overall impression gained was that the IT service providers could achieve significant savings through serving multiple users simultaneously. At the same time, the IT application (e.g. software) can be developed in a much faster and more efficient way by the IT vendor due to numerous reasons. First, the IT vendor may be able to retain very skilled personnel. Second, the vendor has a portfolio of development projects, so in case one technical solution fails, it would be very possible to offer an alternative. Third, the IT vendor retains large IT resources and capabilities.

Also important, as perceived by the participants of the study, was, "Gain access to leading-edge technology". The factor attracted 54.8% of the respondents' perceptions. Access to leading-edge technology is a persuasive argument for IT outsourcing in Western economies (Earl, 1991; Apte, 1992; Palvia, 1995; Clark et al., 1995). In fact, outsourcing can provide immediate access to the most up-to-date technology, as the organisations can request to have the latest and most advanced

technology. It is often the case that the vendors, with their knowledge base and economies of scale, would be able to provide the client organisations with emerging hardware and software technology that has the potential to change the organisation's business environment. Baldwin et al. (2001) found, based on their banking case study in the UK, that "the intent of gaining access to new technologies was considered a reasonable motive for deciding to outsource". On the other hand, Steiner and Teixeira (1990) point out clearly that banks should "link business strategy with technological reality". In other words, the advice is not to buy into systems that are not 'best fit', simply because they fear that, by not doing so, they would be labelled as "technological dinosaurs". During an interview with a senior IT executive in a Kuwaiti bank, it was mentioned that the banking sector in Kuwait is very eager to get up-to-date or world-class IT technology.

With regard to the fifth factor, it was found that "rapid pace of technological change" was attracting 66.6% of the views of the respondents. It is widely believed that the IT environment causes problems because of its high rate of technological change. This kind of change is also increasing the complexity of IS/IT requirements. It is often the case that organisations outsource their IT needs as a 'safe-haven' to meet their complex IT requirements due to the uncertainty in the environment.

It was very surprising that "reduce and control operating cost" was not one of the top five key factors, according to the mean scores. However, this issue has received the highest standard deviation, indicating strong disagreements on its importance among respondents. In follow-up interviews, many respondents cited 'cost reduction and savings ' as an important factor. However, as noted by an IT manager "it is hard to get the savings on short-term approaches, it's intangible and also cost is a variable factor, which means it keeps changing depending on the vendor, IT project size, staff involved, duration, and so on". Baldwin et al. (2001) found, based on their banking case study in the UK, that "cost alone is not always responsible for decisions to outsource, as it was found the bank's outsourcing decision was driven by a series of complex, interrelated motives in a bid to reduce the risks and uncertainties of managing its own technology " (p.15).

As can be seen from Table 6.63, a number of other issues were also considered under Motivation, but the six discussed above were seen by the respondents as the most significant.

One of the IT executives of a bank pointed out in the interview that several major motivations lay behind their IT outsourcing decisions, including mitigating IT technological risk and uncertainty, accessing world-class IT systems, and improving the management of IT operations. He added, "IT contains a huge content of technology uncertainty with its extremely rapidly changing base". He further commented on, "our past experience that the internal IT department has limited expertise with the evolving IT technology", and therefore, "we as IT management have to find ways and tools to mitigate such technological risk by initiating IT outsourcing arrangements". However, it should be noted here that transferring the technological risk and uncertainty to the vendor does not mean that management abandons responsibility to consider the risk. The risk still exists, but the vendor is expected to offer many resources and IT skills to reduce the level of technological uncertainty.

An early and continuing driver of the move to IS/IT outsourcing in the Western developed world is cost reduction/ cost control. It is ranked in sixth place in both public and private sectors. This analysis suggests that this is not a prime motivating factor in Kuwait, in either the public or private sector. The explanation for this relative relegation of cost reduction is perhaps to be found in a review of those factors which are seen as the prime drivers of IS/IT outsourcing in Kuwait. Although ordered differently, the top five motivating factors are the same for both public and private sectors. The emphasis is on the skills, development and technology. The shared concerns over the non-availability of internal resources and "shortage of technical staff", however, suggests that the application of the latest technology may result in the acquisition, by both sectors, of systems which may prove unsustainable locally, if and when the IS/IT outsourcing contracts come to an end.

Q11 Risk Factors in IS/IT Outsourcing

IS/IT outsourcing, as a legitimate management strategy, has deficiencies and threats as well as advantages. This study has unveiled the main risk factors to IS/IT outsourcing in the private sector of Kuwait. Table 6.64 shows the rank, mean, standard deviation, and scale for each risk factor.

The purpose behind this question was to examine and elicit the opinions of respondents about which factors they consider as being risky when dealing with IT outsourcing. An examination of

the mean values in Table 6.64 confirms that the key risk factor is 'security issues/ data confidentiality', since all risk factors follow a very similar mean pattern with the only exception of 'security issues', which loads considerably higher with an average difference in magnitude of 0.40.

Table 6.64: Ranking of Risk Factors in Private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Security issues (data confidentiality)	1	4.02	1.14	1-5
Hidden cost (unspecified in contract)	2	3.55	1.04	1-5
Loss of flexibility/control	3	3.48	.94	1-5
Lack of prior outsourcing experience	*4	3.45	.97	1-5
Ability to operate or manage new systems	*4	3.45	1.02	1-5
Loss of innovative ability	6	3.40	.94	1-5
Loss of in-house IT capability	7	3.38	1.21	1-5
Loss of key IT employees	*8	3.21	1.14	1-5
Rapid pace of technological change	*8	3.21	1.07	1-5
Inadequate planning and management	10	3.19	.92	1-5
Organisation resistance	11	3.00	.77	1-5

*** Denotes a tie for risk factor**

The security issue ranked first in studying risk factors in considering IT outsourcing. In fact, the figure of 69% should come as no surprise, since data confidentiality always has very high priority in the region. Indeed, this finding is consistent with that of Badri (1992); he found IS/IT security has been a prominent and top priority issue in the Arab Gulf region. As noted by Fink (1994), information security is an area often neglected in outsourcing arrangements. Information security covers both data security and business recovery planning (Lee, 1995). When the IT function is outsourced to an external service provider, the organisation no longer retains full control of information security (Lee, 1995), whereas the full control of the information security is retained when the IT function is provided in-house. According to Collins and Millen (1995), the "corporate security issue" was one of the most frequently cited reservations made by American firms.

It was also interesting to note that "hidden costs (i.e. unspecified in the contract)" is considered to be a major drawback, which attracted 64.3% of the respondents' agreement. In addition, a serious concern is that vendors may charge fees for 'additional' services, services which would have been thought to be included in the scope of the contract (Lacity and Hirschheim, 1993). Lacity and

Hirschheim (1993) call this "excess fees", and noted that it was a major concern expressed by many organisations. In a more recent study, Currie and Willcocks (1997) found that a major risk that materialised after initiation of outsourcing was hidden cost. It was also observed by Hendry (1995) that outsourcing can have hidden costs, especially in the longer term, arising from lack of awareness of the changing environment and technology and of user requirements.

The respondents also pointed to "loss of flexibility/control" as the third important threat of IT outsourcing in the Kuwaiti environment. It was found that 52.4% of the respondents have come to accept this finding. Perhaps the greatest risk after security considerations, according to the interviewees, is the "loss of control and flexibility". This concern was supported in the literature by Lacity et al. (1995) and McFarlan and Nolan (1995). Particularly vulnerable is software IT outsourcing (Ang and Toh, 1998). It can be argued that outsourcing may cause some loss of control in the client organisation, as the management of the IT function is shifted towards the vendor. Loss of flexibility (Clark et al., 1995; Earl, 1996) has been found to be a risk factor in dealing with IT outsourcing. If an organisation is "locked into long-term outsourcing contracts", it can be very difficult to reverse the decision to outsource, as the organisation would have to rebuild its internal technological infrastructure. In addition, given the nature of the contractual relations, vendors may find it very difficult to increase/decrease or even to readjust priorities in their workload as a response to the client (Foxman, 1994).

With regard to the fourth risk factor, "lack of prior outsourcing experience", it was found that 47.6% of the respondents accepted this finding. Additionally, ability to operate or manage a new system has received the same mean score. In statistical terms, the two factors have the same importance as viewed by the respondents.

In terms of risk analysis, the top concern for both public and private sectors is "security issues (data confidentiality)", a result which was perhaps to be expected given the already noted high priority accorded to data confidentiality in the Arab Gulf region. Within the remaining top five factors, three of which appear in both sets, in the public sector greater weight seems to be given to the availability and retention of IT skills, whereas in the private sector "hidden costs" and "loss of flexibility/control" are more prominent. In the public sector, "inadequate planning and management" is placed fifth, but this is in tenth place in the private sector. Conversely, "loss of

innovative ability" is placed sixth in the private sector, but in ninth place in the public sector. It seems likely that these differences in emphasis reflect the differences in management style within the two sectors. Given the apparent concern in the public sector about the lack of IT/management expertise (and the low 'score' given to cost reduction as a motivation) it is perhaps surprising that "lack of prior outsourcing experience" is not placed much higher in the public sector list. The placing cannot be explained in terms of 'equivalent' experience of market testing or compulsory competitive tendering, as seen in the West, as these practices are not used in Kuwait.

Q12 Vendor Selection Criteria

The attitudes and opinions of the respondents regarding the criteria for the selection of vendors were examined in this question. For a series of statements setting out the generally accepted criteria for vendor selection for the private sector in Kuwait, respondents were asked to rate each statement on a 5-point Likert-scale, rating the statement as they perceived it. Table 6.65 shows the rank, mean and standard deviation for each criterion in the private sector.

Table 6.65 Vendor Selection Criteria in Kuwaiti Private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Commitment to quality	1	4.36	0.82	1-5
Reputation/ preference	2	4.19	0.77	1-5
Flexible contract terms	3	4.07	0.71	1-5
Scope of resources	4	4.02	0.72	1-5
Price	5	3.90	0.85	1-5
Existing relationship	6	3.60	0.80	1-5
Location	7	3.50	1.15	1-5
Cultural match	8	3.07	1.07	1-5
Additional value- added capability	9	3.00	0.92	1-5

As Table 6.65 shows, "commitment to quality" was the first criterion in choosing the vendor. This factor, as previously mentioned, can be included under the cultural umbrella. It indicates that respondents are searching for high quality work and thus looking for the commitment to such quality. The second criterion was reputation/ preference. The selection of reputation can also be attributed to the cultural factors, where reputation and fame play a significant role in making decisions about vendors. These selection criteria reflect the traditional way of thinking by the

respondents in this part of the world. Formal criteria for the selection were found in only 7 cases, while in the majority of cases (18), no formal procedures were found. Selection was based on the general impressions of the appropriateness of the vendors. Michell and Fitzgerald (1997) set out a process for the client organisation to follow in order to select the 'right' vendor. At the starting point, when a decision is being made to establish an IT outsourcing agreement by the senior management in an organisation, a short list of relevant vendors, by an 'open' or 'closed' procedure, is to be created. 'Open' here means that client company will advertise their needs, and the 'closed' process means that the client will approach the vendor privately. In a later stage, a Request for Information (RFI) from vendors will be required which outlines the client company's general outsourcing needs in terms of current position, objectives, IS/IT functions. Organisations will then request certain information about the IT service provider's capabilities, staffing, experience, and so on. Then this process will lead to what is so called the "invitation to tender"(ITT) document. This kind of process is very time-consuming, but it has many advantages for both the client and the vendor. In the developing countries, such a process is far from being in place.

In a number of follow-up interviews, there was much discussion on the awarding of outsourcing projects based on 'Wastah' (i.e. social/personal ties). This of course may have negative implications for the outcomes of these projects. In other cases, selection was based on the track business record that the vendors provided to the clients. Procedures for tendering were unavailable, or were not always made clear to vendors. One conclusion that must be drawn from this discussion is that there is a lack of a systematic methodology for choosing the vendors. When asked whether or not his organisation had any proper procedure for selecting a vendor, an American IT manager in a Kuwait bank answered, "vendors usually offer 'beautiful promises'...you must read between the lines, you need to see their record of achievements and how they achieved them, go to their headquarters and visit them and see their development team especially if they are away (for example, in the US), and make sure that they are technologically qualified and competent". He continued by saying, "choosing a vendor is a very calculated step which requires much attention and time". The business record of vendors is a "retrospective evaluation of the development of the IS supplier" (De Looff, 1997, p. 127). Vendors who show "consistent, steady, autonomous growth based on a satisfied customer base appeared to be more coherent and integrated" (De Looff,, 1997, p.127). According to Collins and Millen (1995), the

three main factors contributing to the IT vendor selection were, based on their empirical research, price, provider's track record, and qualifications of provider's employees. Willcocks et al. (1995) found, based on their empirical research, that organisations experienced many difficulties in "assessing properly vendors' bids against each other due to poor pre-existing evaluation practice" (p. 338).

'Flexible contract terms' was selected as the third most accepted criterion for vendor selection. In this regard, Harris et al. (1998) suggest that the term "incomplete contract" is synonymous with a flexible contract. Most outsourcing contracts are incomplete, since rapid changing IT technology, uncertainty, and organisational environments make it difficult to specify every contingency in the contract. Diromualdo and Gurbaxani (1998) and Harris et al. (1998) call for 'contract flexibility', which must be built into outsourcing contracts.

"Scope of resources" was chosen to be the fourth factor in the selection criteria for the private sector. Vendors must prove that they have a varied 'pool of resources' which they can offer to the clients. Many vendors are still selling their IT outsourcing services according to their background skills (Michell and Fitzgerald, 1997), and at the same time do not have the business capability. This stresses the need for a careful analysis of vendor capabilities and resources.

The fifth factor was "price", which is a little surprising, as price is the leading criterion in the developed nations. Price is also seen in Kuwait as an important criterion. However, they place more emphasis on other factors, as reiterated by a senior IT staff member, " we look to the vendor as a package, which includes different criteria. Each criterion has a weight, which will add up eventually....price is treated as a pivotal issue...we never ignore it in the process". Similarly, there have been many debates amongst the respondents about the role of this factor in determining the 'right' vendors. It has been recognised in Kuwait for a long time that awarding IT contracts based on the lowest bid submitted by vendors might carry many risky outcomes. It is widely believed that due to the increasing competition among the vendors, the fact that the market segment is small, and the lack of market entry barriers, many vendors would bid at the lowest price just to get the business running. Therefore, many negative outcomes have emerged, in terms of an increasing number of legal actions and claims, IT project delays, cost overruns, failure to manage end user

expectations, and bad financial estimation. As a consequence, the most serious threat is that the quality of the end-product of the project is put in jeopardy.

Other factors of existing relationships, location, and cultural match have not been regarded as important as they were at the end of the list for the private sector. By contrast, Klepper (1995) stressed the importance of the "cultural fit" factor, or cultural match between the client and the vendor in the western environment, where both parties can work with each other in a "comfortable relationship with shared corporate values and working practices."

On this third dimension, vendor selection criteria, there are some minor differences in the ordering of the criteria. This is illustrated by the fact that the first criterion in the public sector is "reputation/preference", while this criterion has ranked second in the private sector. The other criterion "commitment to quality" was ranked second in the public sector, and was first in the private sector. Similarly, the other two important criteria, price and flexible contract terms, although ordered differently, occupy or retain the same significance amongst the views of the interviewees of the two sectors. Against this background, it can be said with certainty that the two sectors are almost identical in their vendor selection criteria and have come to accept that these criteria are of importance in the Kuwaiti environment in general terms. It is perhaps worth noting the low ranking accorded to 'cultural issues' in both sectors, which contrasts with the apparent importance attached to 'cultural issues' in the interviews, see the earlier discussion in Chapter 5.

Q13 Post-Contract Drawbacks

The respondents to this question rated a number of factors that can be considered as drawbacks in the post-contract evaluation of IT outsourcing projects. The respondents agree that all factors except one, "viruses brought by others", are major drawbacks in the post-contract period of IT outsourcing. These comments are confirmed by the results of Table 6.66, which indicate that all factors (with only one exception) have similar patterns. Indeed, this set of questions were used as some form of evaluation of the outcomes of IT outsourcing practices. Table 6.66 shows the rank, mean and standard deviation for each factor in the private sector.

Table 6.66: Post-implementation Evaluation of Private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Late deliveries	1	4.10	1.03	1-5
Low quality service	2	3.95	1.08	1-5
Further sub-contracting by prime IT vendor	3	3.86	1.07	1-5
Poor communication	*4	3.81	1.02	1-5
Lack of documentation	*4	3.81	1.06	1-5
Viruses brought by others	6	2.79	1.09	1-5

*** Denotes a tie for evaluation factors**

Late delivery was ranked first, as suggested in Table 6.66. This finding was endorsed by a remarkable number of respondents in the sector. As has been discussed in the previous chapter for the public sector, this factor was cited to be a major post-implementation drawback there also. In particular, systems software application development was probably the most persistent and serious problem in dealing with IT outsourcing. Poor communication between the two parties, a serious shortage in IT skills, limited vendor technical capability, and client-vendor cultural fit are perhaps the main factors to be blamed. Because this factor has been of particular concern to most organisations, some of the Kuwaiti banks have maintained 'punishment clauses', where financial penalties were being applied to the IT vendors in case of such late delivery as 'a punitive system'. At a more detailed level, many respondents have expressed grave concerns about late delivery of IS/IT services. They attribute this problem to a number of reasons. For example, the overwhelming majority believe that the lack of IT skills could aggravate it. Others attribute it to further subcontracting to lower level vendors. Yet others believe that "business and system functional requirements were not specified in enough detail and were not clear (i.e. inconspicuous or vague)". Lack of understanding, inconspicuous or vague business functional requirements could clearly escalate the situation. Whatever the 'real' causes, there is considerable evidence to show that this factor is being taken as seriously or probably more seriously than any other factor in the Kuwaiti environment.

The second important parameter in the evaluation process was "low quality service". An executive IT manager in the sector explained the situation in more detail. He suggested a number of causes of low quality. For example, he thinks that "the client/customers were often not clear about the type of the desired IT systems being designed and implemented, as well as insufficient preparation from both parties involved". From further analysis within the sector, it was found that other

reasons may account for this problem. Vague implementation timetables, uncertain budgets, the role of end-user departments in project organisation is not emphasised (i.e. lack of user involvement), and inappropriate IT technology and inadequate definition (i.e. projects may not be well defined, tasks are not well understood). Most of the respondents said clearly that the end-user departments are not usually involved in the requirements analysis and implementation phases. Along the same line, many respondents complained about the poor and inefficient IS/IT services provided by vendors including, major reputable international names.

"Further sub-contracting by prime IT vendor" was ranked third (see Table 6.66). One factor that turned clients against a vendor was any notion that the vendor may be sub-contracting to a lower level. This kind of situation has made matters worse and created more difficulties. Since any bid is announced in the press, vendors rush to apply for the tendering process. Sometimes, the vendors do not look closely at their IS/IT capabilities and resources. They even provide the clients with 'beautiful promises', as was noted previously in vendor selection. Further, most of the vendors do not have a proper understanding of the cultural and environmental factors. Some vendors, after they were awarded the contract, start shifting around to look for a solution for their delivery problem. They may attempt to bring some IT skills from Egypt or India as a temporary solution. Many issues of cultural difference will arise here, as has been proved by the failure of a number of IT projects.

The fourth factor was 'poor communication'. Lack of good communication between all staff involved with the IT different projects was felt to be very critical, as the IT projects were managed and developed by a diversity of people originating from different cultures. Therefore, frequent communications may also help to avoid conflicts, facilitate solutions to problems, and reduce uncertainty levels (Aiken and Hage, 1968; Easton, 1992). A comprehensive knowledge of the business environment within which the system is to be developed and embedded is an obvious pre-requisite (Earl, 1994), but in developing countries, this must also include knowledge of social and cultural mores and, where appropriate, religious beliefs. Most of the staff implementing the systems innovations and developments are foreign nationals, including in many cases the IT project manager (See Table 6.6). Several respondents drew attention to problems in communication and assimilating complex concepts in a second language. Communication

encompasses both oral and written language used for instruction, discussion, and debate, and is strongly grounded in the cultural milieu of the different organisations and the country of residence.

There are some differences between the two sectors, the public and the private, in the post-evaluation implementation of IT outsourcing projects, but both have agreed that late delivery is the primary issue. Of particular concern and in second place in the private sector was 'low quality service', in fourth place in the public sector. 'Poor communication' and 'lack of documentation' are seen as more significant in the public sector compared with the private sector where 'subcontracting' is seen as more important than either of these. The reasons for these differences are unclear, but there is more experience of outsourcing in the private sector.

6.8 Summary

In this chapter we present the results of our exploratory, empirical research into the practices and views of IS/IT outsourcing in the context of the Kuwaiti private sector. The chapter provides empirical evidence on the extent to which outsourcing of various IS/IT functions is being practised, and the views of senior IT executives concerning the advantages, disadvantages and motives for IS/IT outsourcing. The research provides empirical evidence for a number of conclusions concerning IS/IT outsourcing, such as type of IT outsourcing agreement preferred, functions being outsourced, degree of IT outsourcing, outsourcing as part of future organisational strategy, the outsourcing decision-making process, contract drafting and negotiations, motivations, risk factors, vendor selection criteria, and post-contract evaluation.

A general observation based on the analysis of the private sector organisations is that IS/IT outsourcing is more common than believed. In this survey, as many as 81% of the respondents had outsourced at least one IT function (excluding the purchase of packaged software). It can be said, with certainty, that outsourcing of IS/IT services in the private sector of Kuwait is on an increasing trend and gathering momentum.

As noted earlier in this chapter, private sector organisations have formulated IT strategies. Such strategies were considered to be vital elements of the general organisational strategies. However, the private sector organisations seem to be unclear in the updating and revision of the IT strategies,

as the results here were mixed. Additionally, the IT department in this sector seems to be viewed as a strategic or core component of the organisation only by a small majority.

As in the public sector, the private sector organisations had experienced difficulties in the delivery of IS/IT services. The major sources of software used in the organisations were in-house developed, ready-made packages, and vendor developed.

The respondents acknowledged the fact that it is very difficult to keep up with all IT developments. The clear majority in this sector were favouring IT partial outsourcing strategies as well as project-based outsourcing rather than total outsourcing for a number of reasons, including security and unavailability of reliable IT vendors in Kuwait.

A crucial finding was the considerable lack of understanding among top management about IT as a potential business operation tool. It was also found that senior and top management are poor at formulating IT strategies, with decisions on outsourcing being mostly initiated by IT managers.

The most outsourced IT functions found within the private sector were systems/software applications development and maintenance, education and training, and network and communication management.

This research has made significant inroads into understanding how organisations can design IT outsourcing plans. The underlying results are that IT authorities within the sector prefer short-term approaches (1-3 years), and there is a relatively high degree of IT outsourcing. IT outsourcing is also on the agenda of all IT executives for future plans. Moreover, it was unanimously agreed by the respondents that the 'right contract' is the most central and fundamental issue that can ensure a high degree of success of IT outsourcing arrangements.

An original objective was to establish motivations/reasons for outsourcing IS/IT services, in terms of the perceived advantages of IT outsourcing. All private organisations recognised its importance. Shortage of technical staff, resources not available internally, faster application development, and gaining access to leading-edge technology, were the primary 'perceived' advantages of IT outsourcing.

The main risk factors of IT outsourcing were also sought from the empirical survey. It was found that security issues have been a major concern throughout the sector. Hidden cost was the second most critical pitfall of all IT outsourcing arrangements, and loss of flexibility and control was ranked third.

In terms of the vendor selection criteria, it was found that commitment to quality, reputation/preference, and flexible contract terms were the most important three factors in choosing the vendors for the private sector. A factor that was rarely mentioned as being important in the context of vendor selection was cost, despite the fact that in many cases one of the driving forces for outsourcing is cost reduction, especially in the developed economies.

On the evaluation dimension, late delivery, low quality services, and further sub-contracting by the prime IT vendor were the three most significant factors in post-implementation evaluation. Other complaints were about the monitoring of, and communication with, the vendors, losing IT knowledge and control of IT projects, and poor communication between the concerned parties. This indicates that the establishment of good vendor relationships may have moderated at least some of the managerial fears and concern over IT outsourcing.

In summary, the consideration of IT outsourcing most clearly indicates that top management is somewhat dissatisfied with the performance (or the return on investment) of the internal IS/IT function. Outsourcing signals a belief that an external provider has the economies of scale and/or expertise to provide superior IT products and services. Whether this is simply because of shortage skills, a cost saving measure, or a vote of non-confidence in the internal IS/IT specialists, or other motivations, it changes their organisational role. After outsourcing, these specialists will have to focus more on monitoring contracted work, to ensure the satisfactory performance of vendors, instead of performing the work themselves. Outsourcing is also likely to create new job requirements for this major role change for IS/IT department staff. The skills of monitoring contracted work, dealing with outsourcing vendors, and being a coordinator between users and vendors differ greatly from those needed to develop and implement IS/IT functions/services.

The analysis in this chapter provides evidence that the private sector, in broad terms, is better organised and managed when dealing with IS/IT outsourcing practices than the public sector. The private sector is apparently investing more in its IT infrastructure and training and education, perhaps to address some of the skills shortage which is one of the key motivations for outsourcing in the first place.

The chapter has addressed several key issues in regard to the IT outsourcing phenomenon in the private sector of Kuwait. The insights drawn from this part of the research are especially pertinent to the successful adoption of IS/IT outsourcing practices within the developing countries, because they highlight dilemmas and barriers that are the direct outcome of ad hoc IT outsourcing strategies when little attention is paid to its totality.

The next chapter presents the results of the analysis of the experience of outsourcing in the semi-private sector of Kuwait

Chapter Seven

Analysis of the Semi-Private Sector Data

7.1 Introduction

The idea of a 'semi-private' or 'joint' sector started in Kuwait in the early 1960s; it was an attempt by the then newly independent state to push for the economic as well as the social and political achievements necessary for the development of Kuwaiti society. It was intended as a means of avoiding the limitations inherent in the private and public sectors. On the one hand, the private sector focuses primarily on short-term, profit-seeking endeavours. On the other hand, the public (governmental) sector operates to serve the public within highly rigid rules and regulations that are not conductive to the effective management of economic activities. Hence, the joint-sector formula was suggested as a means of achieving the diversified economic, social, and political goals of the society by utilising a flexible system of management that is not constrained by the governmental routine. The joint sector plays an important role in the Kuwaiti economy (Abdel-Halim and Al-Tuhaih, 1989). The Ministry of Finance is charged with the responsibility of looking after the government's investment interests in joint-sector organisations.

The survey questionnaire consisted of six major categories. In each section there was a variable number of questions related to the title of the category.

In addition to the Introduction and Summary, there are six sections. The second section discusses the organisational profile of respondents. The third section deals with the cross-tabulation of the results, and provides the reader with more detailed analysis of the Kuwaiti semi-private sector. The fourth section deals with the measurement of reliability analysis. The fifth section deals with information technology department profiles and plans. The sixth section discusses outsourcing terminology and issues. The seventh section deals with the outsourcing decision process.

7.2 Profile of Responding Organisations

Several demographic characteristics of the responding private organisations are displayed in Table 7.1.

It should be noted here that in IS/IT department's reporting level to CEO it was found that levels 6 and 7 were reported here which were not found in the other two sectors. These levels were noted by the IT managers in the huge oil production companies.

Table 7.1: Profile of Responding Semi-private Organisations

Organisation Type	Frequency	Percentage
Semi-private organisations	32	36.8
Total Number of IS/IT staff		
< 10	2	6.3
10 to 30	8	25
31 to 50	4	12.5
51 to 100	9	28.1
> than 100	8	25
No IT department exist	1	3.1
IS/IT Department's Reporting Level to CEO		
1 level	0	0
2 levels	7	21.9
3 levels	13	40.6
4 levels	7	21.9
5 levels	3	9.4
6 levels	1	3.1
7 levels	1	3.1
Percent of annual budget spent on IS/IT department		
Up to 5%	24	75
Up to 10%	4	12.5
Up to 20%	4	12.5
Total number of employees		
10-49	2	6.3
50-249	2	6.3
> 250	28	87.5
Total number of cases	32	100

7.3 Cross-Tabulation Analysis

The first section deals with cross-tabulation of the results so as to provide a more concise picture of the respondents in regard to their gender, job functionality, degree major, educational qualifications, and years of experience in the IS/IT profession. The main purpose is to detect a relationship between two variables that would help in the task of explanation.

7.3.1 Nationality by Gender

In terms of nationality of respondents, the sample contained individuals from two nationalities only. As Table 7.2 indicates, 31 of the respondents were Kuwaiti nationals (96.9 %), while one respondent was Arab (3.1%). Also, 25 respondents in total were male (78.1%), and the remaining seven were female (21.9%). This profile is more similar to the public sector than the private sector.

Table 7.2: Nationality by Gender Cross-Tabulation

Nationality	Gender		Total
	Male	Female	
Kuwaiti	25	6	31
Non-Kuwaiti Arab		1	1
Total	25	7	32

7.3.2 Nationality by Educational Qualification

As Table 7.3 indicates, there is only one respondent who is a Kuwaiti national and has a high school diploma (3.1%), while 27 respondents who are Kuwaiti nationals (84.4%) as well as one Arab (3.1%) have a Bachelor's degree. For higher educational degrees, there were three Kuwaiti nationals (9.4%) who have a Master's degree. Again, this pattern has more similarities with the public sector.

Table 7.3: Nationality by Educational Qualifications Cross-Tabulation

Nationality	Educational Qualification			Total
	High School	Bachelor's Degree	Master's Degree	
Kuwaiti	1	27	3	31
Non-Kuwaiti Arab		1		1
Total	1	28	3	32

7.3.3 Nationality by Degree Major

As shown in Table 7.4, it was found that 2 respondents who are Kuwaiti nationals have an information systems degree (6.3%), also 16 respondents have a computer science degree (50%), 5 respondents have an engineering degree (15.6%), and 8 respondents have 'other' degree (25%), which could be accounting, finance, etc. The one respondent who was an Arab has 'other' degree (3.1%).

Table 7.4: Nationality by Degree Major Cross-Tabulation

Nationality	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Kuwaiti	2	16	5	8	31
Non-Kuwaiti Arab				1	1
Total	2	16	5	9	32

7.3.4 Gender by Degree Major

As Table 7.5 shows, there were 2 respondents who are male and have an information systems degree (6.3%). Also, 13 male respondents have a computer science degree (40.6%), 4 male respondents have an engineering degree (12.5%), 6 male respondents have 'other' degree (18.8%). On the other hand, 3 females have a computer science degree (9.4%), 1 female has an engineering degree, and 3 females have 'other' degree (9.4%).

Table 7.5: Gender by Degree Major Cross-Tabulation

Gender	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Male	2	13	4	6	25
Female		3	1	3	7
Total	3	16	5	9	32

7.3.5 Job Function by Nationality

As Table 7.6 indicates, for the first group, the Kuwaiti nationals, there were 3 respondents who classified themselves as executive management (9.38%), 6 respondents identified themselves as middle management (18.75%), there were 11 respondents who classified themselves as IT managers (34.37%), there was 1 respondent who classified himself as an IT consultant, and 10 respondents classified themselves as in an IS/IT senior position (31.25%). For the second group, Arab nationals, the one respondent classified himself as an IT manager (3.13%).

Table 7.6: Job Function by Nationality Cross-Tabulation

Job Function	Nationality		Total
	Kuwaiti	Non-Kuwaiti Arab	
Executive/Upper management	3		3
Middle Management	6		6
IT manager	11	1	12
IT consultant	1		1
IS/IT senior position	10		10
Total	31	1	32

7.3.6 Job Function by Degree Major

As the results show in Table 7.7, it was found that, for the first group, executive management, 1 of the respondents has a computer science degree (3.13%) and 2 respondents have 'other' degree (6.25%). For the second group, middle management, 4 respondents have a computer science degree (12.5%), 1 respondent has an engineering degree (3.13%), and 1 respondent has 'other' degree (3.13%). For the third group, IT managers, 1 respondent has an information systems degree (3.13%), 4 have a computer science degree (12.5%), 2 respondents have an engineering degree (6.25%), and finally, 5 respondents have 'other' degree (15.6%). For the fourth group, IT consultant, the one respondent has a computer science degree (3.13%). For the fifth group, IS/IT senior staff, 1 respondent has an information systems degree (3.13%), 6 respondents have a computer science degree (18.75%), 2 respondents have an engineering degree (6.25%), and finally, 1 respondent has 'other' degree (3.13%).

Having analysed the cross tabulation result between job function by degree (see Table 7.7), it was noticed only 2 respondents have an information systems background. Also, 16 respondents have come from a computer science background, 5 from engineering and, finally, 9 from other majors (e.g. accounting, finance, management, etc.). However, it was a surprise to find some senior IT positions held by people with different educational backgrounds.

Table 7.7: Job Function by Degree Major Cross-Tabulation

Job function	Degree Major				Total
	Information Systems	Computer Science	Engineering	Other	
Executive/Upper management		1		2	3
Middle Management		4	1	1	6
IT manager	1	4	2	5	12
IT consultant		1			1
IS/IT senior position	1	6	2	1	10
Total	2	16	5	9	32

7.3.7 Job Function by Number of Years in IS/IT Profession

As Table 7.8 indicates, it was found that, for the first group, executive management, one respondent has been in the IS/IT profession between 6 and 10 years (3.13%), 2 respondents have been in the IS/IT profession between 16 and 20 years (6.25%). For the second group, middle management, 2 respondents have been in the IS/IT profession between 6 and 10 years (6.25%), one respondent has been in the IS/IT profession between 11 and 15 years (3.13%) and 3 respondents have been in the IS/IT profession between 16 and 20 years (9.38%). For the third group, IT managers, 2 respondents have been in the IS/IT profession between 1 and 5 years (6.25%), 1 respondent has been in the IS/IT profession between 11 and 15 years, 5 respondents have been in the IS/IT profession between 16 and 20 years (15.62%), and finally, 4 respondents have been in the IS/IT profession for more than 20 years (12.5%). For the fourth group, IT consultants, one respondent has been in the IS/IT profession between 11 and 15 years (3.13%). For the fifth group, IS/IT senior staff, 2 respondents have been in the IS/IT profession between 1 and 5 years (6.25%), 2 respondents have been in the IS/IT profession between 6 and 10 years (6.25%), 3 respondents have been in the IS/IT profession between 11 and 15 years (9.38 %), one

respondent has been in the IS/IT profession between 16 and 20 years (3.13%), and finally, 2 respondents have been in the IS/IT profession for than more 20 years (6.25 %).

Table 7.8: Job Function by Number of Years in IS/IT Profession

Job function	Number of years in IS/IT profession					Total
	1 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	+20 Years	
Executive/Upper management		1		2		3
Middle Management		2	1	3		6
IT manager	2		1	5	4	12
IT consultant			1			1
IS/IT senior position	2	2	3	1	2	10
Total	4	5	6	11	6	32

7.4 Measurement of Reliability Analysis

Reliability simply means the consistency of the measurement. In 1952, Cronbach defined the reliability coefficient (α). Cronbach's alpha is used to determine the internal consistency of items within a scale for each construct. Nunnally (1978), Litwin (1995), and De Vaus (1996) suggest that an alpha value of 0.70 is sufficient to demonstrate a reasonable level of internal consistency (range from 0 to 1). Furthermore, Nunnally (1978) suggests that an alpha of 0.60 is sufficient for non-validated scales. The reliability of the multi-scale in this questionnaire was determined by using the Cronbach alpha test. Table 7.9 reports the calculated reliability coefficient (α) corresponding to each group.

Table 7.9: Reliability Value for the Factor Groups

Factor Groups	Measurement	Reliability (Cronbach alpha) (α)
Motivation for IS/IT outsourcing	13 items. Reliability of motivation group	.783
Risk analysis	11 items. Reliability of risk group	.854
Criteria for IS/IT vendor selection	9 items. Reliability of selection criteria group	.816
Post-contract evaluation	6 items. Reliability of post-contract evaluation group	.882

7.5 Section II: Information Technology Department Profiles and Plans

The questions were largely directed to ascertain information about the IT department itself in each organisation that participated in the study. For example, the first question was to find out what percentage of the organisational annual budget is spent on the IT department. The next question was concerned with the complexity of the organisation of the IT department, to see the reporting levels from programmer to IT manager. The figures for Questions 1 and 2 are in Table 7.1.

Q3. Formal Corporate Business Strategy

The purpose of Question 3 was to determine if the target organisation has a 'formal corporate business strategy'. As can be seen in Table 7.10, the majority of respondents 25(78.1%) have indicated that their organisations have a formal corporate business strategy, while 7(21.9%) have responded negatively.

Table 7.10: Availability of Formal Business Strategy

	Frequency	Per cent
No	7	21.9
Yes	25	78.1
Total cases	32	100

Q4. IT and Organisational Strategy

The relationship of IT with the overall business strategy of the organisation is examined in this question. The purpose of the question was to determine if IT has any formal links to the general organisational strategy. The respondents were provided with four different propositions.

The first choice was "IT is irrelevant to the general organisational strategy". Based on the results shown in Table 7.11, the respondents rejected this proposition since 30 (93.8%) answered that IT is a vital element and relevant to the general organisational strategy.

Table 7.11: Irrelevant to Strategy

	Frequency	Per cent
No	30	93.8
Yes	2	6.3
Total cases	32	100

A second choice provided was " IT is an enabling tool for the strategy". As can be seen in Table 7.12, 22 (68.8%) of the respondents, the majority, disagreed that IT is such an enabling tool. On the other hand, 10 (31.3%) agreed with this view.

Table 7.12: Enabling Tool for Strategy

	Frequency	Per cent
No	22	68.8
Yes	10	31.3
Total cases	32	100

The third choice was to find out if IT is believed to be " a key resource in implementing the strategy". As the results can be seen from Table 7.13, 8 (25%) have agreed on this proposition. At the same time, the great majority, 24 (75%) have shown disagreement with the third choice.

Table 7.13: Key Resource in Implementing Strategy

	Frequency	Per cent
No	24	75
Yes	8	25
Total cases	32	100

In regard to the fourth choice, which was posed to determine if IT is believed to be "an integral component of the strategy", as the results show in Table 7.14, the majority of the respondents 24(75%) have disagreed with the statement. On the other hand, 8 (25%) have agreed with this view.

Table 7.14: Integral Component of Strategy

	Frequency	Per cent
No	24	75
Yes	8	25
Total cases	32	100

Q5. Development of Formal IT Strategy

The next question was used to find out if there is a formal IT strategy developed by the semi-private organisations. As the results show in Table 7.15, 23 (71.9%) of the respondents answered positively that they do have an IT strategy. On the other hand, 9 (28.1%) said their organisations do not have a formal IT strategy. This shows the majority of the semi-private organisations do have an IT strategy.

Table 7.15: Formal IT Strategy Developed

	Frequency	Per cent
No	9	28.1
Yes	23	71.9
Total cases	32	100

The respondents who answered positively to the previous question were further asked to provide an insight on how often the IT strategy of their organisations is updated or revised. According to the results shown in Table 7.16, 8 (25%) of the organisations appear to update their IT strategy on

an annual basis, while 11 (34.4%) revised "every 2-3 years". In addition, 4 (12.5%) of the organisations appear to update their IT strategy "every 4-5 years". As 9 (28.1%) of the respondents said IT strategy is updated or revised "as required", the interpretation of these figures could indicate of there is no clear vision in regard to the IT strategy updating policy in a minority of semi-private organisations.

Table 7.16: IT Strategy Updating and Revision

	Frequency	Per cent
Rarely	0	0
Every year	8	25
Every 2-3 years	11	34.4
Every 4-5 years	4	12.5
More as required	9	28.1
Missing	0	0
Total cases	32	100

Q6. IT Awareness

The next question surveyed the opinions of respondents on whether their organisations are aware about the latest developments in the IT industry. The use of a semantic interval scale provided a clear and concise picture of the response patterns for this question. From a visual examination of Table 7.17, it can be concluded that the majority of the semi-private organisations have a high awareness about the latest developments in the IT sector. The results in Table 7.17 show that 6 (18.8%) of the respondents have "moderate awareness", 7 (21.9 %) of the respondents answered with level "5", and 5 (15.6%) of the respondents have replied with level "6", which is one level before great awareness. Also, 7 of the respondents (21.9 %) have gone one level up which is "great awareness". These figures clearly indicate that the IT awareness in the semi-private sector is much more than in the public sector and similar to the private sector.

Table 7.17: IT Awareness

Choices	Frequency	Per cent
2	3	9.4
3	4	12.5
Moderate Awareness	6	18.8
5	7	21.9
6	5	15.6
Great awareness	7	21.9
Total cases	32	100

Q7. Methods for Obtaining IS/IT Services

Table 7.18 presents the methods that semi-private organisations employ in order to obtain IS/IT services. As in the other two sectors the internal computer department of the organisations appears to be the most widely used method of obtaining the IS/IT services. The other options (e.g. hiring temporary staff, request IT service from outside) have also been practised to a certain degree.

Table 7.18: Internal Computer Department for IS/IT Services

Choices	Frequency	Per cent
Never	1	3.1
Rarely	3	9.4
Sometimes	8	25.0
Often	10	31.3
Always	10	31.3
Total cases	32	100

Q8. Role of IT Department

The respondents were asked to indicate the role that the IT department plays in their organisations. The results are presented below (see Table 7.19) which shows the sample is divided between the two response options. A proportion of 19 (59.4%) consider the IT department to have a supportive/non-core role, while the remaining 13 (40.6%) consider the IT department to have mainly a strategic role in the wider organisation. The semi-private is similar to the public sector in their view of the strategic role of the IT department and obviously different from the private sector.

Table 7.19: Role of IT Department

	Frequency	Per cent
Core	13	40.6
Non Core	19	59.4
Total cases	32	100

Q9. Overall Growth Stage of IT

This question was posed for the responding IS/IT executives to select one of four descriptions that best characterised the overall growth stage of IS/IT development in his/her organisation (Nolan, 1979). It can be seen from the Table 7.20 that most of the semi-private sector organisations belong to the maturity stage, more than in either of the other two sectors.

Table 7.20: Overall Growth Stage of IT

IS Development Stage	Frequency	Per cent
Initial stage	0	0
Expansion stage	6	18.8
Control stage	6	18.8
Maturity stage	20	62.5
Total cases	32	100

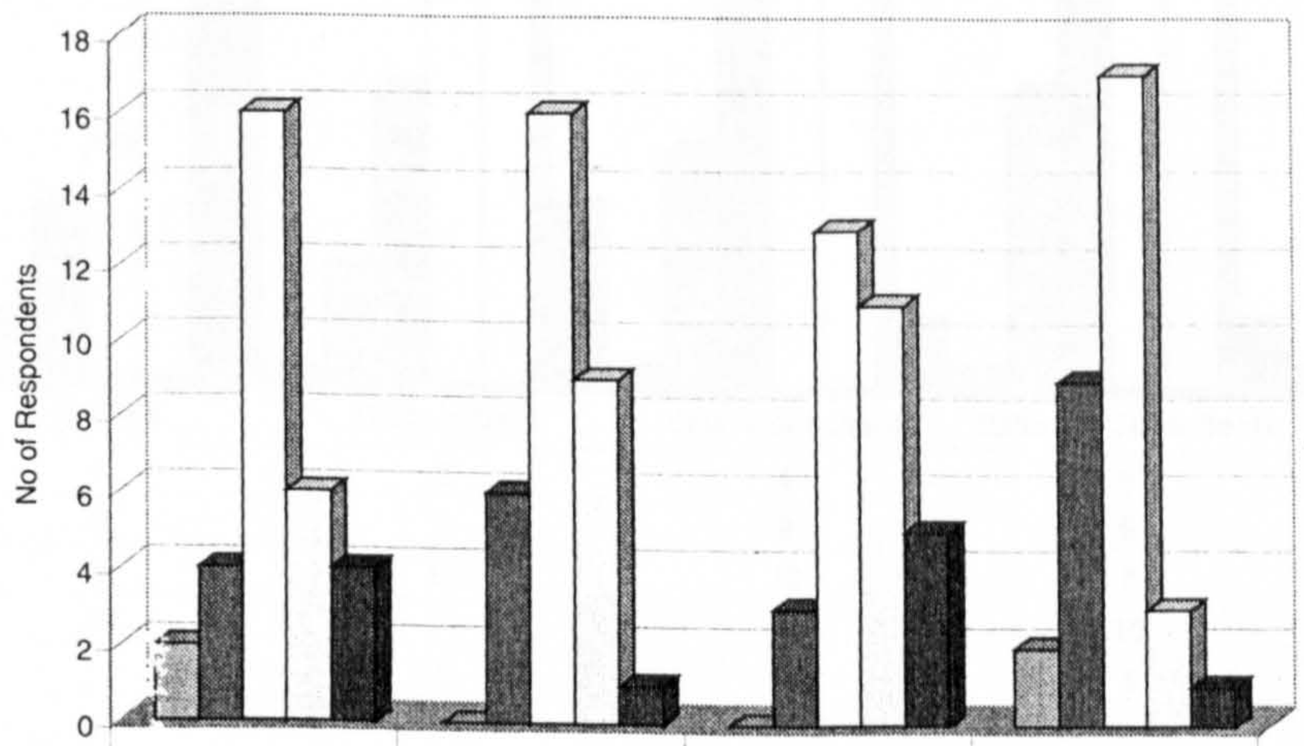
Q10. Difficulties in Delivery of IS/IT Services

The rationale behind the inclusion of this question was to examine the efficiency and effectiveness of the IT departments of the respondent organisations in the provision of their services. As demonstrated in Table 7.21, 39 (92.9%) of the respondents have experienced difficulties in the way that the IT services were provided from their IT departments, while 3 (7.1%) have not experienced any difficulties in the delivery of IS/IT services.

Table 7.21 Difficulties in Delivery of IS/IT Services

	Frequency	Per cent
No	11	34.4
Yes	21	65.6
Total cases	32	100

The respondents were further asked to indicate the factors that were contributing to these difficulties. A breakdown of the types of difficulties that these organisations face in the provision of IT services is provided in Figure 7.1. From a visual inspection of the figure, it can be asserted that to some extent all factors (e.g. hardware systems, software systems, expertise/ IT skills, etc.) are contributing in a very similar pattern to the IT delivery difficulties of the organisations.



	Hardware Systems	Software Systems	Expertise/Skills	Understanding Required Task
Not at all	2	0	0	2
Very little extent	4	6	3	9
Some extent	16	16	13	17
Considerable extent	6	9	11	3
Very great extent	4	1	5	1

Figure 7.1: Difficulties in the Delivery of IS/IT Services

Q11. Decision-Making Process

The decision-making process of the executives/top officials/management in the semi-private organisations as they make strategic decisions in regard to IT was examined with four different alternatives provided. The first point that emerges from the analysis is that there is a great deal of consultation with the IT department before making any strategic decision. A definite trend is evident here as in the other two sectors that it is the IT departments which initiate any IT strategic decisions (see Figure 7.2).

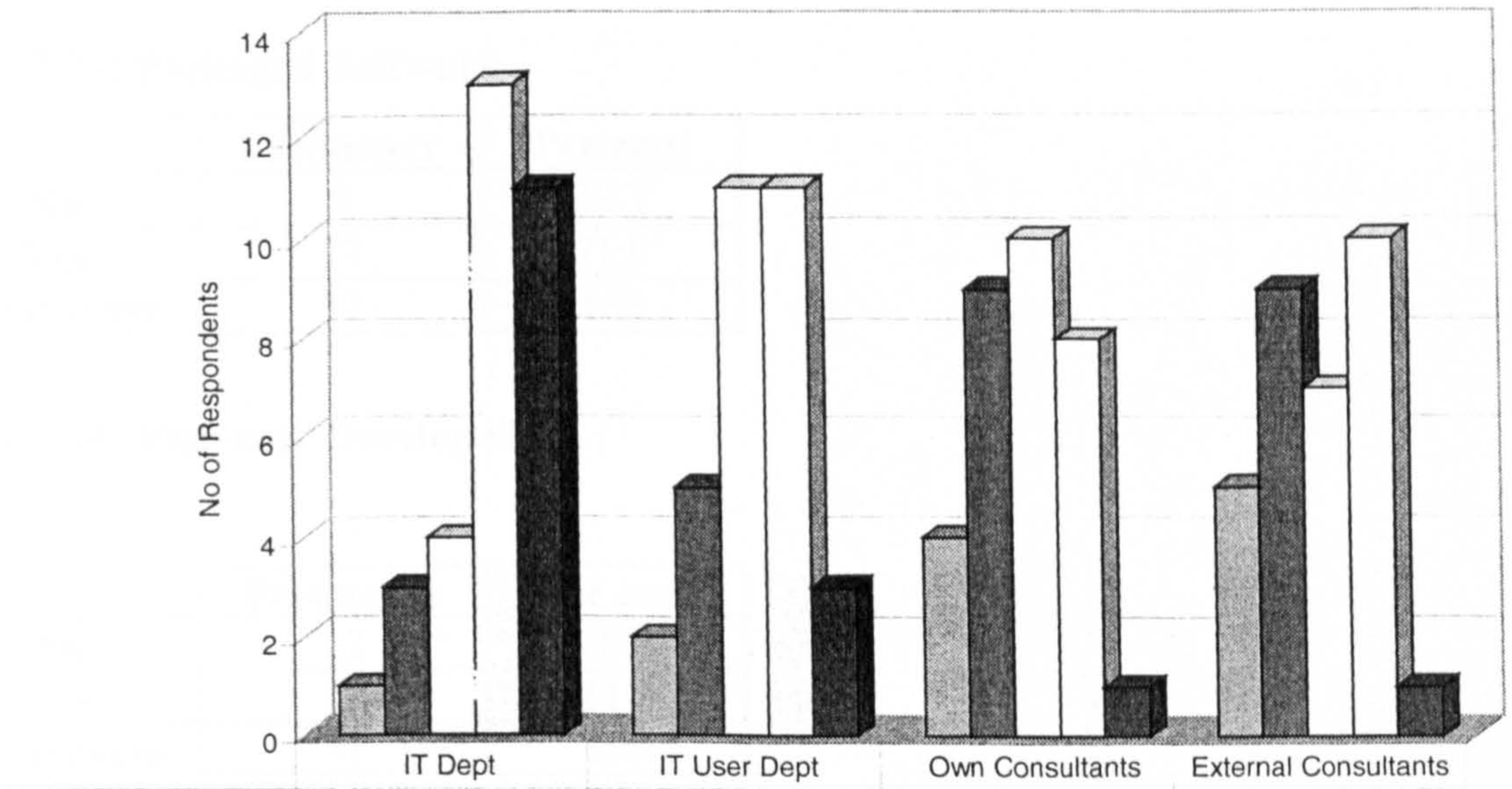


Figure 7.2: Decision-Making Process

Q12. Sources of Software Used Currently in the Private Organisations

The majority of the organisations use in-house developed software and ready packaged software, as summarised in Tables 7.22 and 7.23, 25 (78.1%) and 23 (71.9%). Other choices provided to the respondents such as end-user development and consultant development, were not strongly supported (see Tables 7.24, 7.25). An interesting point which emerged is that vendor software development was picked up by half of the respondents, 16 (50.0%) (see Table 7.26).

Table 7.22: In-house Software Developed

	Frequency	Per cent
No	7	21.9
Yes	25	78.1
Total cases	32	100

Table 7.23: Packaged Software

	Frequency	Per cent
No	9	28.1
Yes	23	71.9
Total cases	32	100

Table 7.24: End-user Developed

	Frequency	Per cent
No	22	68.8
Yes	10	31.3
Total cases	32	100

Table 7.25: Consultant Developed

	Frequency	Per cent
No	26	81.3
Yes	6	18.8
Total cases	32	100

Table 7.26: Vendor Developed

	Frequency	Per cent
No	16	50.0
Yes	16	50.0
Total cases	32	100

Q13. Keeping Up with IT Developments

The last question in Section II of the questionnaire introduces a general statement by which the opinions of the respondents are tested using an attitudinal interval scale. It was designed to determine if respondents felt it was difficult for organisations to keep up with the developments in the IT industry. A majority of the respondents 19 (59.4%) agreed with the proposed statement; of the remainder, 8 (25.1 %) have either slightly disagreed or strongly disagreed, and 5(15.6 %) were neutral (see Table 7.27).

Table 7.27: Keeping up with IT Developments

	Frequency	Per cent
Strongly disagree	2	6.3
Slightly disagree	6	18.8
Neutral	5	15.6
Slightly agree	10	31.3
Strongly agree	9	28.1
Total cases	32	100

7.6 Section III: Outsourcing Terminology and Issues

This section consisted of 11 questions. The section started by presenting a simple definition of IS/IT outsourcing in order to make sure that the meaning was clear and understandable for all respondents. The general aim of the section was to address some important issues in IS/IT outsourcing.

Q1. Awareness of Outsourcing and Meaning

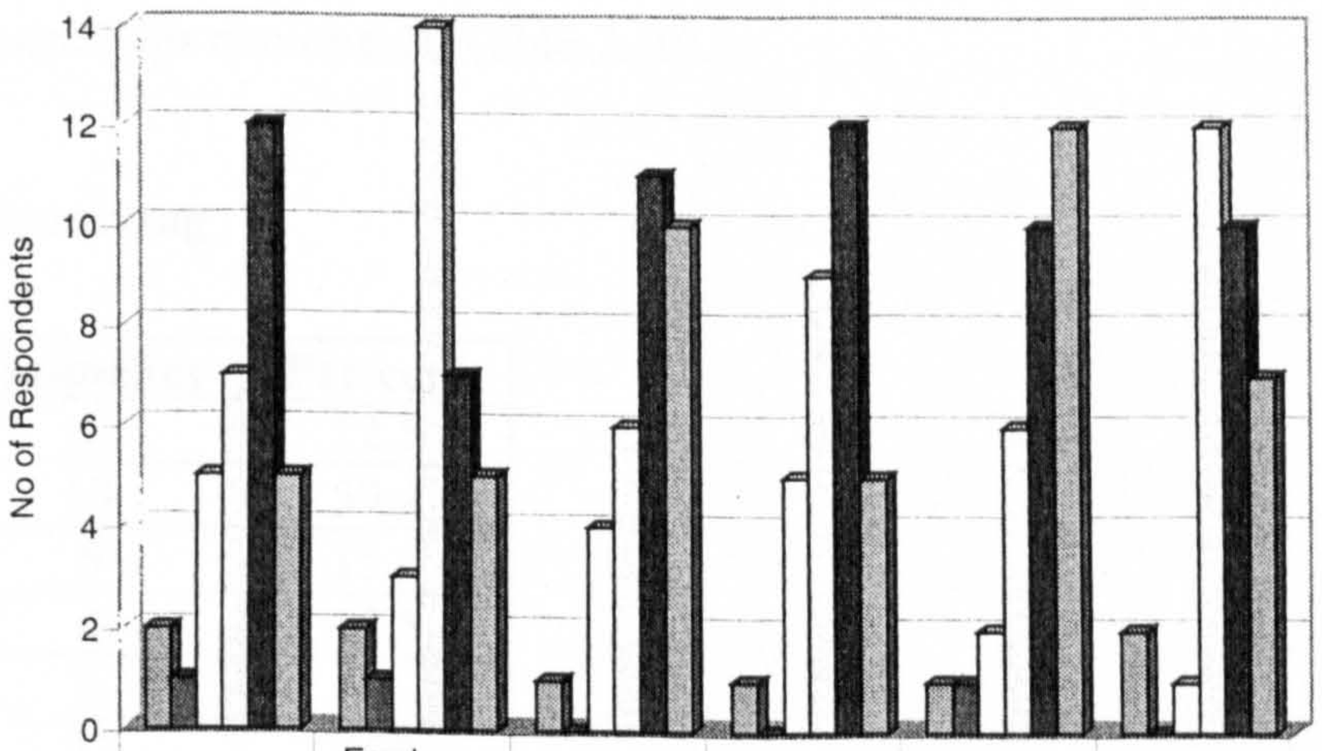
This question was used to assess what the respondents' awareness was of IT outsourcing. Almost all (87.5%) of the respondents indicated that they had heard the term "outsourcing" and knew what it meant. Only 1(3.1%) had never heard the term before. The 'other' 3(9.4%) had heard of outsourcing but were not sure what it was. It is reasonable to assume that in order to have an interest in responding to the survey questionnaire in the first place, respondents would need to be aware of what outsourcing is. The results of this question are useful as confirmation that almost all questions were answered by people who felt they knew what IT outsourcing was (see Table 7.28).

Table 7.28: Awareness of Outsourcing and Meaning

	Frequency	Per cent
Never heard	1	3.1
Aware and knew meaning	28	87.5
Heard but not sure of meaning	3	9.4
Total cases	32	100

Q2. Usefulness of Sources of Information on IT Outsourcing

This question was designed to find out the sources of information on the topic of IT outsourcing. Many choices were provided to the respondents. The analysis of the data revealed that Internet was the major source of information. Other sources were also indicated as useful and important sometimes, such as trade publications, seminars and IT conferences, employer communications and personal experience (see Figure 7.3).



	Trade Publications	Employer Communications	Seminars	Personal Experience	Internet	Co-workers
Never used	2	2	1	1	1	2
Not useful	1	1	0	0	1	0
Rarely useful	5	3	4	5	2	1
Moderately useful	7	14	6	9	6	12
Quite useful	12	7	11	12	10	10
Very useful	5	5	10	5	12	7

Figure 7.3: Usefulness of Sources of Information on IT Outsourcing

Q3. Outsourcing of IS/IT Functions, Total or Partial

The level and extent of agreement of the respondents regarding the outsourcing of IS/IT functions were examined in Question 3. The respondents were asked whether they felt outsourcing could be an appropriate business decision. The results of this question are significant. There were two choices provided, total outsourcing and partial (i.e. selective) outsourcing. As Table 7.29 shows, the respondents were generally not in favour of total outsourcing.

A majority of respondents 23 (71.9%) did not agree or strongly disagreed with total outsourcing, while 5 respondents were neutral (15.6 %). The rest of the respondents, 4 (12.5 %), were favouring total outsourcing although they are a minority. It should be emphasised here, however, that total outsourcing is mainly not favoured because it is often the case that total outsourcing process involves the transfer of IT personnel, assets and other responsibilities from the outsourcing organisation to the vendor.

On the other hand, there was a clear majority in favour of selective outsourcing strategies, as 25 (78.1 %) respondents favoured this choice (see Table 7.30).

Table 7.29: Total IT Outsourcing

	Frequency	Per cent
Strongly disagree	4	12.5
Slightly disagree	19	59.4
Neutral	5	15.6
Slightly agree	4	12.5
Strongly agree	0	0
Total cases	32	100

Table 7.30: Partial IT Outsourcing

	Frequency	Per cent
Strong disagree	1	3.1
Slightly disagree	2	6.3
Neutral	4	12.5
Slightly agree	12	37.5
Strongly agree	13	40.6
Total cases	32	100

The views on this issue were very similar across all sectors.

Q4. Past Experience with IT Outsourcing

This question was designed to determine if the organisations had any experience in dealing with IT outsourcing in the past. As the results show in Table 7.31, 29 (90.6 %), the overwhelming majority

of the respondents have had some experience and dealt with IT outsourcing previously. This figure suggests that the semi-private sector of Kuwait has been even more active in dealing with IT outsourcing than either of the other two sectors.

Table 7.31: IS/IT Outsourcing Past Experience

	Frequency	Per cent
No	3	9.4
Yes	29	90.6
Total cases	32	100

Q5. Type of IT Outsourcing Agreement Preferred

This question had as its aim to identify the type of outsourcing agreement that each organisation under investigation has practised previously. There were six choices provided to choose from. The three most popular types of IS/IT outsourcing appear to be 'selective outsourcing', 'education and training', and 'project-based outsourcing', as presented in Tables 7.32, 7.33, 7.34, 7.35, 7.36. As discussed previously, the concept of total outsourcing agreement is not favoured in the semi-private sector organisations. 25 (78.1%) of the respondents favoured the selective outsourcing agreement, 24 (75.0%) of the respondents favoured the education and training option, and the third most accepted type of IT outsourcing agreement is project-based, which captured 21(65.6%).

Table 7.32: Total IT Outsourcing

	Frequency	Per cent
No	31	96.9
Yes	1	3.1
Total cases	32	100

Table 7.33: Selective Outsourcing

	Frequency	Per cent
No	7	21.9
Yes	25	78.1
Total cases	32	100

Table 7.34: Project-Based Outsourcing

	Frequency	Per cent
No	11	34.4
Yes	21	65.6
Total cases	32	100

Table 7.35: Function-Based Outsourcing

	Frequency	Per cent
No	28	87.5
Yes	4	12,5
Total cases	32	100

Table 7.36: Training and Education Outsourcing

	Frequency	Per cent
No	8	25
Yes	24	75.0
Total cases	32	100

Q6. IT Functions Previously Outsourced (from 1991)

The following question was designed to find out what IT functions have been outsourced in the semi-private organisations in the past 9 years (following the liberation of Kuwait in 1991 from the Iraqi invasion). Tables 7.37, 7.38, 7.39, 7.40 provide a detailed view about the extent of outsourcing arrangements that took place in the organisations under investigation. Almost all the IT functions were outsourced for the majority of the organisations. However, for the Kuwaiti semi-private organisations, the most common task to be outsourced is education and training, systems/software development and maintenance. Other IT areas are emerging as well. For example, the Kuwaiti giant oil production sector has recently outsourced its IT help desk.

Table 7.37: Training and Education

	Frequency	Per cent
No	10	31.3
Yes	22	68.8
Total cases	32	100

Table 7.38: Systems/Software Applications Development and Maintenance

	Frequency	Per cent
No	11	34.4
Yes	21	65.6
Total cases	32	100

Table 7.39: Network Management

	Frequency	Per cent
No	18	56.3
Yes	14	43.8
Total cases	32	100

Table 7.40: Technical Support Functions

	Frequency	Per cent
No	19	59.4
Yes	13	40.6
Total cases	32	100

Q7. Degree of IS/IT Outsourcing

The degree of IT outsourcing services in the organisations was examined in Question 7. The responses follow a normal distribution, something that implies a modest result. To provide a more concise explanation for this question, the mean value will be discussed. The mean score is 3.84. Considering that the measures were taken on a 7-point interval scale, then it can be safely said that there is a relatively high degree of IT outsourcing within the organisations. In the results presented in Table 7.41, most of the responses were distributed over the scale starting from none to level 6.

Table 7.41: Degree of IS/IT Outsourcing

	Frequency	Per cent
None	2	6.3
2	5	15.6
3	5	15.6
4	9	28.1
5	6	18.8
6	5	15.6
Total cases	32	100

Q8. IT Outsourcing Plans

The next question was used to find out if the semi-private organisations are intending to outsource some of their IS/IT activities as part of their future plans. As is demonstrated in Table 7.42, 22 (68.8%) of the respondents answered positively, something that indicates a positive inclination towards IS/IT outsourcing as was found in both the other sectors (see Tables 5.39 and 6.42).

Table 7.42: IT Outsourcing Plans

	Frequency	Per cent
No	10	31.3
Yes	22	68.8
Total cases	32	100

Q9. IT Outsourcing as Part of Future Organisational Strategy

This question was to determine if IT outsourcing was a part of the IT future strategy in the organisation. As the results show in Table 7.43, 21 (65.6 %) of the respondents said that strategic outsourcing is a part of the IT future strategy, and something that is always on the top of the agenda for any IT executive to consider as a viable option, again an outcome consistent with that in both the other sectors.

Table 7.43: IT Outsourcing as Part of Future Organisational Strategy

	Frequency	Per cent
No	11	34.4
Yes	21	65.6
Total cases	32	100

Q10. Preferred Type of Outsourcing Relationship

The purpose of the question was to determine what type of relationship the organisations prefer. Most organisations, as is illustrated in Table 7.44, 26 (81.3 %) of the respondents, prefer a short-term relationship (i.e. 1-3 years). On the other side, very few (6, 18.8%) prefer an over 3 years type of relationship. The main reason for the short-term (i.e. trial and error) approach to IT outsourcing arrangements is the poor definition of role and service which permeates the practice of IT outsourcing. A similar level of response was found in the other two sectors.

Table 7.44 Preferred Type of IT Relationship

	Frequency	Per cent
1-3 Years	26	81.3
Over 3 years	6	18.8
Total cases	32	100

Q11. Data Security as Major Outsourcing Concern

The last question of this section surveyed the opinions of respondents on whether the issue of data confidentiality (e.g. security) is a matter of major concern when they are discussing the possibility of IT outsourcing arrangements. As shown in Table 7.45, the majority of the respondents 27 (84.6%) consider the issue as very critical and significant, while 2 (6.3 %) of the respondents were neutral, and 3 (9.4%) did not agree.

Table 7.45: Security Issues

	Frequency	Per cent
Strongly disagree	0	0
Slightly disagree	3	9.4
Neutral	2	6.3
Slightly agree	6	18.8
Strongly agree	21	65.6
Total cases	32	100

7.7 Section IV: Outsourcing Decision Process

This section discusses the results on the attitudes/opinions of the respondents on the IT outsourcing decision-making process.

Q1. Initiation of Decision on IS/IT Outsourcing

The purpose of this question was to identify who initiates the IS/IT outsourcing decisions. As is demonstrated in Table 7.48, the IT managers mostly initiate the decision on IS/IT outsourcing. Also, it can be noticed in Tables 7.46, 7.47 that neither the top management nor the MIS executives have any major decision initiation on IT outsourcing. The results here have a similar emphasis to those in the other two sectors (see Tables 5.43, 5.44, 5.44, 5.45, 6.46, 6.47 and 6.48).

Table 7.46: Top Management

	Frequency	Per cent
No	18	56.3
Yes	14	43.8
Total cases	32	100

Table 7.47: MIS Executive

	Frequency	Per cent
No	19	59.4
Yes	13	40.6
Total cases	32	100

Table 7.48: IT Managers

	Frequency	Per cent
No	12	37.5
Yes	20	62.5
Total cases	32	100

Q2. Multiple Vendors Working Simultaneously in Two Different IT Functions

This question was used to find out if the organisations have ever used multiple vendors working simultaneously in two different IT functions. 19 (59.4 %) of the respondents have done this in the past, while 13 (40.6 %) of the respondents answered negatively (see Table 7.49).

Table 7.49 Multiple Vendors Working Simultaneously

	Frequency	Per cent
No	13	40.6
Yes	19	59.4
Total cases	32	100

Q3. Reasons for Simultaneous Working

The respondents who answered positively on the previous question were further asked to provide an insight on the reasons behind that decision. Four different choices were offered to the respondents. As the results show in Tables 7.50, 7.51, two of the proposed statements were accepted as being the rationale behind that decision. The first accepted rationale was "safeguard against being dependent upon a single vendor" which captured 29 (69%%). The second was "have more access to world-class technology and expertise" which was by accepted by 18 (56.3 %). The respondents did not accept the other two statements. One interpretation of these figures is that, despite the organisation's desire to obtain leading-edge technology, at the same time they do not want to become dependent on only a single IT service provider.

The three sectors, as discussed earlier, have accepted the rationale "safeguard against being dependent upon a single vendor" behind using multiple vendors working simultaneously in two different IT functions. However, they disagreed on the second reason. The public and semi-private sectors selected "have more access to world-class technology and expertise", while the private sector selected "more competition and innovation which results in a better output". This could be explained in light of the background of each sector. The public and semi-private sectors' main concern is to get the IT leading-edge technology, and they do not really feel the pressure of competitiveness. On the other hand, the private sector is also concerned with obtaining IT technology but believes strongly in a competitive environment.

Table 7.50: Safeguard Against Being Dependent Upon Single Vendor

	Frequency	Per cent
No	11	34.4
Yes	21	65.6
Total cases	32	100

Table 7.51: Have More Access to World-class Technology and Expertise

	Frequency	Per cent
No	14	43.8
Yes	18	56.3
Total cases	32	100

Q4. Legal Representation

The following question was used to determine if the organisations have hired a legal representative to represent them as part of the decision-making process. The majority 18 (54.8%) of the respondents have indicated that a legal representative would not be hired in any outsourcing decision-making process, while 14 (43.8 %) of the respondents replied they had a legal representative in any outsourcing deals (see Table 7.52).

Another difference between the sectors can be recognised in the responses to this question. In the public and semi-private sectors, the majority of respondents indicated that no legal representative would be hired in any outsourcing decision-making process. In the private sector, the majority of respondents indicated that a legal representative would be hired in any outsourcing decision-making process. This probably could be interpreted as the private sector is more experienced in dealing with outsourcing issues than the public and semi-private sectors.

Table 7.52: Legal Representation

	Frequency	Per cent
No	18	56.3
Yes	14	43.8
Total cases	32	100

Q5. Improvement of IT Department Before Outsourcing Decision

The findings of Question 5, as presented in Table 7.53, indicate that the great majority, 26 (81.3 %), considered improving their own IT departments before any attempt is made to outsource IT functions and activities, as in both the other sectors.

Table 7.53: Improvement of IT Department Before Outsourcing Decision

	Frequency	Per cent
No	6	18.8
Yes	26	81.3
Total cases	32	100

Q6. Outsourcing Contract Draft and Revision

This question was aimed at finding out who usually drafts and revises the IT outsourcing contract. The survey results clearly point out that IT managers are those generally responsible for drafting and revising the contract for all outsourcing practices, with 25 (78.1 %) respondents agreeing (see Tables 7.54, 7.55). It is worth noting that 20 (56.3 %) respondents agreed that their legal/law departments participate in the drafting and revising outsourcing contracts. The legal/law departments play a similar role here as in the public sector.

Table 7.54: IT Managers

	Frequency	Per cent
No	7	21.9
Yes	25	78.1
Total cases	32	100

Table 7.55: Legal/Law Department

	Frequency	Per cent
No	12	37.5
Yes	20	62.5
Total cases	32	100

Q7. Legal Disputes and Legal Action

The respondents were asked how they would settle their legal disputes in case of such a possibility. The results, as presented in Table 7.56, show that opinion was equally divided on the local settlement of legal disputes, a result similar to that for the private sector. A large majority, 24 (75%), of the semi-private organisations prefer to address these legal issues in a specific way when the contracts and agreements are drafted with IS/IT vendors (see Table 7.57). This view is common to all three sectors. At the same time, where respondents were asked if they would like to settle their cases in an international legal system (a neutral country) or the host country of the IT vendor, there was a universal rejection of both possibilities, as shown in Tables 7.58, 7.59.

It is worth noting that there is a cultural difference which has been recognised here. On the one hand, almost all the Kuwaiti managers in all three sectors have rejected the idea of resorting to legal action against the vendors either in their countries or in a neutral court system. They would rather settle the legal cases in Kuwait, although they acknowledge the fact, as mentioned previously, that the Kuwaiti legal system is not well-prepared for any IT-related issues. On the other hand, all the foreign participants in this study supported the issue of taking legal actions to any court system in any part of the world, whether that would be in the vendor's country or in a neutral court system Also, the other interesting point which was agreed upon by all the participants was that resorting to legal action would be the last course of action taken, because conflicts might be resolved but relationships between the concerned parties are severely impaired.

The interpretation is consistent with research findings indicating that Arab executives tend to conduct their business in an informal, consultative manner with an emphasis on various indirect methods to avoid open or direct confrontation (Muna, 1980). It is worth noting here that part of this is cultural, since Kuwaitis place a high value on resolving differences in a brotherly way, even if it means postponing making a decision (Muna, 1980), or making a compromise decision (sometimes at an exorbitant economic cost) (Abdel-Halim and Al-Tuhaih, 1989). Social harmony in Kuwaiti culture is as important in many ways as is economic rationality in Western cultures.

Table 7.56: Local Legal System

	Frequency	Per cent
No	16	50
Yes	16	50
Total cases	32	100

Table 7.57: Usually Specified in Contract Signed by Two Parties

	Frequency	Per cent
No	8	25
Yes	24	75
Total cases	32	100

Table 7.58: International Legal System

	Frequency	Per cent
No	32	100
Yes	0	0
Total cases	32	100

Table 7.59: Host Country of Vendor

	Frequency	Per cent
No	31	96.9
Yes	1	3.1
Total cases	32	100

Q8. Right Contract or Agreement as Key Factor

As is demonstrated in Table 7.60, almost all the respondents, 29 (90.6 %) are inclined positively towards the statement that the "Key factor for establishing a successful outsourcing relationship is to have the right contract or agreement". This conclusion is supported by the mean value, as presented in Table 7.61. A mean value of 4.56 in a five-point Likert scale is considered to be a valid indicator of a reliable result.

Table 7.60: Right Contract as Key Factor

	Frequency	Per cent
Strongly disagree	1	3.1
Slightly disagree	1	3.1
Neutral	1	3.1
Slightly agree	5	15.6
Strongly agree	24	75
Total cases	32	100

Table 7.61: Mean Value and Standard Deviation Values

Number of respondents	32
Mean	4.56
Standard Deviation	0.95

Q9. Need for Arabisation of IT Systems

This question was addressed to find out if there is a real need for 'Arabisation' of all systems implemented in the organisations. As the results show in Table 7.62, 13 (40.6 %) of the respondents think it is needed. On the other hand, the majority, 19 (59.4 %), of the respondents responded that there is no real need to 'Arabise' the IT systems in the semi-private sector organisations. This contrasts with the public sector response where the majority think it is needed, and is in agreement with the private sector.

Table 7.62: Need for Arabisation of IT Systems

	Frequency	Per cent
No	19	59.4
Yes	13	40.6
Total cases	32	100

Q10. Reasons or Motivations for IS/IT Outsourcing

For a series of statements setting out the generally accepted advantages and disadvantages of IS/IT outsourcing or reasons for outsourcing, respondents were asked to rate each statement on a 5-point Likert-scale specifying the statement's importance as they perceived it. Table 7.63 shows the rank, mean, standard deviation, and scale of each motivating factor.

Focusing on the top 5 key factors, the rationale behind each factor is set out below to put the findings in the context of the Kuwaiti semi-private setting, based on additional information gained from the interviews. It should be noted, however, that many issues overlap or indirectly complement one another (Palvia and Basu, 1999).

The percentages quoted in the following discussion indicate the number of respondents who agreed or strongly agreed with the relevant statement, the mean is a weighted calculation with greater weight given to strongly agree. The factors are ranked according to the mean.

Table 7.63: Ranking of Motivating Factors in the Semi-private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Shortage of technical staff	1	4.16	1.14	1-5
Resources are not available internally	2	3.97	1.15	1-5
Gain access to leading-edge technology	3	3.91	.73	1-5
Improve core business competence	4	3.81	.90	1-5
Faster application development	5	3.72	.99	1-5
Enhancement of IT staff expertise	6	3.69	.93	1-5
Reduce and control of operating cost	*7	3.56	1.11	1-5
Rapid pace of technological change	*7	3.56	.91	1-5
Enhance flexibility and responsiveness	*7	3.56	1.11	1-5
Avoiding of obsolescence risk	10	3.25	.95	1-5
Increased availability of service providers (vendors)	11	3.00	.84	1-5
Cash infusion	12	2.75	.80	1-5
Share risk	13	2.59	.95	1-5

- **Denotes a tie for motivating factor**

Respondents were asked to rank the reasons most often quoted in the literature for IT outsourcing to find out what is the 'real' impetus behind IT outsourcing in the semi-private organisations in Kuwait. Ranked first is the shortage of IS/IT skills and support experience. There was a perception among participants that the IT outsourcing vendor could provide the needed IT expertise and skills. As one IT manager said, "we need to get the right people, with right IT skills, in the right place, at the right time and only for the required time". He added "when the IT department recognised the desperate need for additional IT skilled labour, it turned to vendors for their technical expertise". In general, participants felt that qualified IS/IT personnel were difficult to acquire, especially considering that the process of finding, hiring, and training personnel was not only time-consuming but also expensive. At the same time, IT management seemed to be paranoid about headcounts. Then why not turn to IT outsourcing to access their skills labour pool? After all, vendors -theoretically- have the state-of-the-art technical skills. This conforms with previous research findings. Lacity and Hirschheim (1995) argue that one of the prime motivations for outsourcing is "access to technical talent". They further state that "numerous companies consider outsourcing partly for the access to greater IS expertise" (p. 26). Another facet to the skills issue is

the possibility of "co-sourcing". This means that organisations will hire temporary IT staff with much needed skills to work under internal (in-house) management control for completing a certain IT project. The PA Consulting Group UK (1994) found in their survey that this factor was ranked as the most popular reason for outsourcing.

'Resources are not available internally' was ranked second. Internal resources could take different forms. For example, it could be particular hardware platforms or certain important software or even some needed IT experience and expertise. One senior IT staff member in the oil production companies said "the problem is not with the investment in IT, we certainly are capable of investing and we do want to invest as we need desperately world-class IT technology to ultimately enhance our oil production rate. However, lack of knowledge on the needed and required resources might pose some problems.... therefore we opt for IT outsourcing". Many participants in the study said outsourcing decisions were probably initiated to acquire new resources that were not available before, such as machine upgrade or enhancing internal IT skills.

'Gain access to leading-edge technology' was ranked third. Perhaps the second and third factors are overlapping or indirectly complement one another.

'Improve core business competence' was ranked fourth. This factor has emerged for the first time to be among the five top factors in the three sectors. Loh and Venkatraman (1992b) proposed business performance and competence as one of the determinants of IS/IT outsourcing activities. Zwass (1998) offered a description of outsourcing as a possible trend towards organisational specialisation around key business competence support. Lacity and Hirschheim (1995) argue that "return to core competencies" was a key motivation for numerous organisations in the USA. As stated by an executive manager in the semi-private sector, "outsourcing can leverage many IS/IT functions and services that are viewed as non-core activities...therefore my organisation can pay more attention to, and put more focus on, the core activities". This line of argument is also extended by the PA Consulting Group Survey (1994) which found that freeing management time to focus on core business activities was the third most popular benefit quoted by managers in the UK.

Another factor motivating IT outsourcing was 'faster application development'. This factor was selected by the three sectors to be a prime motivation factor for IT outsourcing in Kuwait. This conclusion is broadly supported by the Currie and Willcocks (1997) and Vowler (1997). Outsourcing of 'application development' might be due to growing confidence in the outsourcing market place, or due to IT skills, shortage in the systems and applications development. One IT manager in one of the giant oil companies said, "oil production in the different fields is routine work identical in almost all oil production fields in the world with some minor differences. Thus we buy these software applications from different vendors to reduce the cost and increase the efficiency, and most importantly these IT systems are developed, mostly, faster than in-house and respond in a timely manner to user requests".

'Enhancement of IT staff expertise' was ranked sixth. It is considered that by outsourcing IT operations, the different teams (clients and vendors) who work jointly on projects can complement and enhance IT expertise for the internal IT staff, especially with training exercises, and many Kuwaiti organisations would note that as an important clause or stipulation in the contracts. A study by Lacity et al. (1994) found that "numerous companies consider outsourcing partly for the access to greater IT knowledge it would bring" (p.13).

'Reduce and control of operating cost' again was not among the top five factors, but was ranked seventh in this sector. It should be noted that the cost of outsourcing is not just the cost of the service, but also includes the costs of setting up the relationship, and monitoring and co-ordination of the vendor's activities (Ngwenyama and Bryson, 1999). Lacity and Hirschheim (1993) argue that one of the lessons they extracted from their intensive research in the Western nations was that "organisational members may initiate outsourcing for reasons other than cost efficiency".

To draw some similarities and differences among the three different sectors, it can be said with high degree of certainty that the three sectors unanimously agree on the main issues, although ordered differently, such as the 'shortage of IT skills', 'resources are not available internally', 'gain access to leading-edge technology', and 'faster application development'. In the semi-private sector, it was notable that 'improve core business competence' was one of the leading factors in motivating outsourcing which was not among the five leading factors in the other two sectors.

Q11. Risk Factors in IS/IT Outsourcing

IS/IT outsourcing, as a legitimate management strategy, has deficiencies and threats as well as advantages. This study has unveiled the main risk factors to IS/IT outsourcing in the semi-private sector of Kuwait. Table 7.64 shows the rank, mean, standard deviation, and scale for each risk factor.

The purpose behind this question was to examine and elicit the opinions of respondents about which factors they consider as being risky when dealing with IT outsourcing (see Table 7.64). In contrast to the optimistic trade media coverage of IT outsourcing, there is growing evidence that IT outsourcing entails a significant amount of risk (Quinn and Hilmer, 1994; Jurison, 1995; McFarlan and Nolan, 1995).

Table 7.64: Ranking of Risk Factors in Semi-private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Hidden cost (unspecified in the contract)	1	4.00	0.88	1-5
Security issues (data confidentiality)	2	3.78	1.13	1-5
Loss of in-house IT capability	3	3.75	0.98	1-5
Loss of flexibility/control	*4	3.50	0.92	1-5
Loss of key IT employees	*4	3.50	0.92	1-5
Ability to operate or manage new systems	6	3.47	1.05	1-5
Loss of innovative ability	7	3.34	1.04	1-5
Lack of prior outsourcing experience	8	3.28	0.99	1-5
Rapid pace of technological change	*9	3.19	1.08	1-5
Inadequate planning and management	*9	3.19	1.06	1-5
Organisation resistance	11	2.94	0.80	1-5

*** Denotes a tie for risk factor**

The most dominant risk is 'hidden cost', ranked first (see Table 7.64). Although this factor was of a significance in the other sectors, it was a little surprising for it to be the most prominent risk factor in the semi-private sector, such that it has overtaken the security issues which were thought

to be the most serious risk factor in dealing with IT outsourcing in the Kuwaiti environment. However, this conforms with previous research findings. Lacity and Hirschheim (1993) report that "The vendor rightfully reports that services are not documented in the contract". This view was also supported by Jurison (1995). Respondents' comments tended to emphasis the notion that the hidden cost has been recently a serious threat in IS/IT outsourcing deals. One of the comments which IT managers made to the author was that the vendors do not "disclose very tiny details in the contracts such as PC maintenance on different oil production sites, transfer of software licence fees, etc." and the manager continued, "hence, we find later that the charges are accumulating and the deal itself has become a heavy duty". When asked about the reasons behind hidden cost, he replied that " I acknowledge that lack of scrutiny is mainly due to lack of experience in dealing with outsourcing and also trust... I repeat we trust the vendors so much and unfortunately we accept the agreements/contracts provided to us by the vendors, which protect the vendor and reserve his rights more than the client, this is because we do not know how to draft contracts ".

The respondents also pointed to 'security issues (data confidentiality)' as the second important threat in IT outsourcing. Security is a major concern observed in the three sectors. In the Western nations, the same concern also exists, as Lacity and Hirschheim (1993, p.19) note "others fear vendors may not maintain confidentiality". Organisations are always going to feel a degree of uncertainty by leaving critical information in the hands of the vendor. Those organisations that use selective outsourcing strategies will have better control over what information is handed over to their vendor.

The third risk factor was 'loss of in-house IT capability'. As Quinn and Hilmer (1994) and Domberger (1998) argue, outsourcing can generate new risks, such as the loss of critical skills or developing the wrong skills, or the loss of cross-functional skills. This line of argument is also supported by Violino and Caldwell, (1998) who state that, "Among the long term-term dangers IT organisations face in using integrators and outsourcers to augment internal staff is the risk that their very best people will be poached, or employees may not develop the essential skills and know-how to manage and maintain new systems". The loss of 'critical' IT skills can adversely affect the capacity of the organisation to develop any new systems in the future. Also, the loss of "corporate or institutional memory" might compromise performance (Hall, 2000). The findings reported here underline Prahalad and Hamel's (1990, p.84) warning that "outsourcing can provide

a short-cut to a more competitive product, but it typically contributes little to building the people-embodied skills that are needed to sustain product leadership".

'Loss of flexibility/control' was seen as the next important risk factor, and was cited as one of the main reasons that organisations are sceptical about IT outsourcing. This fear is also evident in the developed nations, as reported by PA Consulting Group UK (1994).

Ranked equally as an important risk factor was 'loss of key IT employees'. The large amount of industry-specific and corporate knowledge held by organisations' employees is a vital resource and has a value that should not be overlooked. Therefore, in the case of major outsourcing deals, it is to be expected that if key employees leave the organisation, they will be taking with them experience that can never be replaced (Violino and Caldwell, 1998). Hence, if the outsourcing agreement is terminated, the rehiring of these employees by the organisation would be very difficult.

One manager was quoted as saying that "the problem of outsourcing lies in the fact that we do not have an adequate risk analysis or risk assessment methodology for IT outsourcing projects whereby a detailed view of the possible risks is understood and estimated. We usually overlook this angle". This conforms with previous research findings, that "there is a need to classify outsourcing risk systematically and develop measures for describing risk in quantitative terms" (Jurison, 1995).

Another 'trust' concern as a risk factor was unveiled by another respondent in this sector, who noted, "as a strategy, outsourcing has it drawbacks. It might ease IT support, but at the cost of cultural strangeness or reduced response times, it might solve the problem of recruiting and retaining IS/IT staff, but will add to commercial risks with trust being passed on to external service providers".

A particular conclusion that may be drawn in this sector, as one key finding derived from the respondents' comments, is the 'lack of risk assessment, evaluation and management', and the fact that little attention has been paid to its absence.

Q12. Vendor Selection Criteria

The attitudes and opinions of the respondents regarding the criteria for the selection of vendors were examined in this question. For a series of statements setting out the generally accepted criteria for vendor selection for the semi-private sector in Kuwait, respondents were asked to rate each statement on a five-point Likert-scale, rating the statement as they perceived it. Table 7.65 shows the rank, mean and standard deviation for each criterion in the semi-private sector.

Table 7.65: Vendor Selection Criteria in Kuwaiti Semi-private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Reputation/ preference	1	4.53	0.67	1-5
Flexible contract terms	*2	4.22	0.91	1-5
Commitment to quality	*2	4.22	1.07	1-5
Price	4	4.19	1.03	1-5
Additional value- added capability	5	4.16	0.72	1-5
Scope of resources	6	4.00	0.84	1-5
Existing relationship	7	3.63	0.87	1-5
Location	8	3.41	1.04	1-5
Cultural match	9	3.09	0.96	1-5

*** Denotes a tie**

As Table 7.65 shows, "reputation/ preference" was the first criterion in choosing the vendor. To a considerable extent, as previously mentioned, this factor can be included under the cultural umbrella. The selection of reputation can be attributed to the cultural factors where reputation and fame play a sensitive role in making decisions about vendors. These selection criteria reflect the traditional way of thinking by the respondents in this part of the world. Major international vendors like IBM, Microsoft have always been portrayed for their trustworthiness and capability as IT external service providers.

"Flexible contract terms" was ranked second. Diromualdo and Gurbaxani (1998) and Harris et al. (1998) call for 'contract flexibility', which must be built into outsourcing contracts. As uncertainty

and IT complexities in the business environment increase and grow, there is a 'real need' for more flexible contract terms which must be negotiated and agreed upon before a deal is reached.

"Commitment to quality" was ranked as equally important. In broad terms, it indicates that respondents are searching for high quality work and thus looking for the commitment to such quality. However, Willcocks et al. (1996) posed an important question, "is there a vendor who can actually deliver on your identified requirements?".

"Price" was the next factor, in fourth place. Again, this was rather surprising as price continues to be a key determinant in the developed nations, and price is also seen as an important criterion in Kuwait. Clearly, as in the other two sectors, more emphasis is placed on other factors. Previous research has pointed out that selecting the lowest bid can "incur risks of deteriorating service and opportunistic behaviours" (Lacity and Hirschheim, 1995, p. 217). Experience of 'late delivery' and 'low quality service' may also have encouraged respondents to look beyond price.

The fifth factor was "additional value-added capability". Respondents believe that by outsourcing IT services and functions, their organisations will gain more value. As Lacity and Willcocks (2001, p. 19) state "customers are looking for 'value-added' from their outsourcing suppliers. With value-added outsourcing, the 'partners' combine strengths to add value…". It is surprising to note, however, that 'adding-value' was the least significant factor in the private sector.

'Scope of resources' of the vendor was selected to be the next factor. As discussed previously, vendors have to demonstrate their wide and diverse scope of resources, both intellectual and physical.

'Existing relationship' was not regarded as a very important factor, probably because outsourcing relations between vendors and clients can be either one-time or repetitive. Towards the end of the initial contract, many organisations make decisions regarding the continuation of the outsourcing relationship with existing vendors. Most prior research has treated each sourcing decision as an independent event or case and thereby disregarded prior relationship, as the factors considered in this deal are different from those considered in the previous (initial) outsourcing arrangement.

'Past positive experience' could be a factor encouraging an organisation to continue with the same vendor.

"Location", and "Cultural match" were not regarded as very important factors as they received little attention from the respondents. In fact, they were the last two factors in the list. In contrast, Kling (1987) asserts that IS/IT projects are embedded within a social and cultural context, which encompasses the social relations among the participating teams, and the infrastructure resources that support such IS/IT systems. Robey et al. (1990) and Abdul-Gader (1999) point to the importance of organisational and cultural factors in systems development. Robey et al. (1990) describe a MNC experience in implementing software application in two Latin American developing countries. They show that the same software failed in one country, while succeeding in another. The difference in implementation outcomes between the two countries was attributed to several cultural and organisational factors, including: users' perceived threats from the 'new' software system; lack of user involvement; lack of manuals in the local language; and lack of local management in the project development team.

Overall, the pattern of responses on vendor selection criteria for the top factors in the semi-private sector is closer to that found in the public sector. As noted in the earlier discussion of the public and private sectors, 'cultural issues' are accorded a low ranking, despite the apparent importance attached to these issues in the interviews and in the literature.

Q13. Post-Contract Drawbacks

The respondents to this question rated a number of factors that can be considered as drawbacks in the post-contract evaluation of IT outsourcing projects. The respondents agree that all factors are major drawbacks in the post-contract period of IT outsourcing. These comments are confirmed by the results of Table 7.66, which indicate that all factors have similar patterns. Indeed, this set of questions were used as some form of evaluation of the outcomes of IT outsourcing practices. Table 7.66 shows the rank, mean and standard deviation for each factor in the semi-private sector

Table 7.66: Post-implementation Evaluation of Semi-private Sector

Factor	Rank	Mean	Standard Deviation	Scale
Late deliveries	1	4.13	1.13	1-5
Low quality service	2	4.00	1.02	1-5
Poor communication	3	3.72	.96	1-5
Lack of documentation	4	3.69	1.20	1-5
Further sub-contracting by prime IT vendor	5	3.44	1.11	1-5
Viruses brought by others	6	3.38	1.04	1-5

Respondents were asked to provide their assessment/evaluation of their IT outsourcing projects.

"Late deliveries" was ranked first, as suggested in Table 7.66. This finding was endorsed by a significant number of respondents in the sector. As has been discussed in the previous chapters, for the public and the private sectors this factor was cited to be a major post-implementation drawback there also.

The second important parameter in the evaluation process was 'low quality service'. This factor was also seen as a serious and significant.

Given the scale and complexity of the problems associated with the first two factors, it would be a difficult task to describe 'easily' the prevailing or tangible reasons for them. However, a problem faced by many different organisations is a lack of 'real' understanding of the role of IT and the requirements of IT projects. As Flowers (1996, p.21-22) states "it is an 'observable' fact that those who are most closely concerned with project development... are often the last people to see its inherent problems". In addition, there are a number of other reasons that acted to reinforce such outcomes according to comments made by a number of respondents, including: an 'unrealistic' date for IT project completion; IT complexity underestimated; inexperienced vendors; inadequate IT project management; poor quality software assurance; inadequate testing; cost overruns; flawed outsourcing tendering procedures; poor user training; choosing 'lowest-bidder' approach to vendor selection; and poor and ineffective oversight and control. Along the same line, many respondents

complained about the poor and inefficient IS/IT services provided by vendors, including major reputable international names.

It should be emphasised here that most of, if not all, the outsourcing deals and contracts in Kuwait are not disclosed to the press. It is very difficult to estimate the exact amount spent on IS/IT outsourcing and also the number of successful or failed IT outsourcing cases. It is worth noting here that it is a part of the Arab culture not to disclose failure cases, as it brings a 'wrong' or 'bad' reputation to the person in charge and to the organisation he/she belongs to.

"Poor communication" was ranked third (see Table 7.66) to be again among the top drawback factors in IT outsourcing arrangements. Along the same line, Deming (1986) argues that poor vendor performance is the result of poor communication and co-ordination. Although IT researchers recognised the importance of effective communication among the different stakeholders in software development projects (Curtis et al., 1988; Al-Rawas and Easterbrook, 1996), two issues in particular are important: communication between systems analysts and stakeholders, and the need for sound negotiation techniques in reconciling conflicting viewpoints (Goguen, 1994). Further, Apte (1990) argues that in developing a large and complex IT system and software, the problem of communicating and co-ordinating activities of multiple teams is always a difficult task. Hence, constant communications, both interpersonal and data communication, among the users, the designers, and the programmers becomes a key for developing quality software. Also, Apte (1990) also recognised the importance of having a "common language", as software projects typically require a significant amount of 'verbal communication' between clients and vendor. Therefore he emphasises that vendor management "must share the language" with the customer to ensure the work is up to standard.

"Lack of documentation" was cited as the fourth factor. Documentation here does not only include the manuals produced to explain step-by-step the operating systems or data base files, but it also means all the other system analysis and design documents. Robey et al. (1990) discussed an IT failure case in one developing country where lack of manuals in the local language and lack of local management in the project development team were among the reasons that were identified as causes of failure.

"Further sub-contracting by prime IT vendor" was pointed as the next 'threat' to IT outsourcing. The main reason behind it perhaps is choosing the 'lowest-bidder' approach for vendor selection, whereby the vendor has been awarded the bid without having the required IT skills and expertise to complete the project. Hence, the prime vendor will approach other vendors in different of parts of the world in order to meet the demands. In such cases, many problems will emerge. According to a comment made by an IT manager "this is a widespread problem in Kuwait ... we are 'seriously' looking for a solution ...". As has been discussed earlier and as noted by a senior member of IT staff, "very few outsourcing vendors will talk about their outsourcing failures."

For all the three sectors 'late deliveries' is the primary issue, though in the public sector this 'shares' first place with 'poor communication' and 'lack of documentation'. For both private and semi-private sectors 'low quality service' is more important than either of these. In the private sector 'further sub-contracting by prime IT vendor' is seen as a more important problem than it is in either of the other two cases. It seems that each sector has been driven by the IT outsourcing experience they have accumulated, and this is more likely to be the probable reasons for such outcomes.

7.8 Summary

In this chapter, we present the results of our exploratory, empirical research into the practices and views regarding IS/IT outsourcing in the context of the Kuwaiti semi-private sector. The chapter provides empirical evidence on the extent to which outsourcing of various IS/IT functions is being practised, and the views of senior IT executives concerning the advantages, disadvantages and motives for IS/IT outsourcing. The research provides empirical evidence for a number of conclusions concerning IS/IT outsourcing, such as type of IT outsourcing agreement preferred, functions being outsourced, degree of IT outsourcing, outsourcing as part of future organisational strategy, the outsourcing decision-making process, contract drafting and negotiations, motivations, risk factors, vendor selection criteria, and post-contract evaluation

An interesting question, posed by Altinkemer et al. (1994), is "whether outsourcing is an international phenomenon?" They answered the question by saying, "the number of outsourcing deals are becoming widespread internationally" (p. 265). As discussed earlier, this sector is very

experienced with IT outsourcing operations with an 'unexpected' 90.6%, the overwhelming majority of the respondents, having had some experience and dealt with IT outsourcing previously. Indeed, this 'massive' shift in IT governance is currently characterised by an indication that the semi-private sector is investing more to keep up with latest IT technology, and this may well prove to be a short-sighted strategy with disastrous consequences in the longer term if not enough attention is paid to all other factors and considerations. Yet the straightforward choice of internal (in-house) versus external (outsourcing) is too simplistic in the light of so many other considerations and parameters.

As in the public and private sectors, the semi-private sector organisations had experienced difficulties in the delivery of IS/IT services, as 65.6% acknowledged this reality. The major sources of software used in the organisations were in-house developed, ready-made packages, and vendor developed.

The respondents acknowledged the fact that it is very difficult to keep up with all IT developments. The clear majority in this sector were favouring partial or 'selective' IT outsourcing strategies, rather than total outsourcing for a number of reasons including security, and the unavailability of reliable or robust IT vendors in Kuwait. The most outsourced IT functions found within the semi-private sector were education and training and systems/software applications development and maintenance. The other two IT functions (network management, technical support) have been outsourced, but not to the same degree. The respondents also pointed out that IT outsourcing strategy is a part of future organisational strategy.

This study indicates that IT outsourcing is not a one-shot decision whether to outsource or insource, but an on-going series of decisions regarding the governance of IT. In effect, these decisions are an integral part of the process by which the organisations' top management in co-operation with IT management attempt to maximise the value of IT. The findings of this study are in agreement with other research that, whatever the outsourcing approach, organisations cannot ignore their own departmental role in IS/IT management. At the same time, an important finding was the considerable lack of understanding among top management about IT as a potential business operational tool, despite the fact that strong top management commitment is an essential ingredient for successful IT outsourcing projects.

With regard to our research sample of semi-private organisations, cultural influence on the answers cannot be ruled out. Given the cultural map of the Arabs, it is not surprising that Muna (1980) found that most of the Kuwaiti managers are consultative; in other words, not decisive in taking 'strong or rigid' decisions. In fact, realising the organisational and cultural components of IS/IT is definitely a step forward towards increasing the likelihood of IS/IT project success, as has been argued through the chapter.

This research has made significant inroads into understanding how organisations can design IT outsourcing plans. The underlying results are that IT authorities within the semi-private sector, as in the other two sectors, prefer short-term approaches (1-3 years), and there is a relatively high degree of IT outsourcing. IT outsourcing is also on the agenda of all IT and MIS executives for future plans. Moreover, it was unanimously agreed by the respondents that the 'right contract' is the most central and fundamental issue that can ensure a high degree of success of IT outsourcing arrangements.

The perceived benefits and main motivations of IT outsourcing which have been explored in the semi-private sector were included: shortage of technical staff, resources are not available internally, gain access to leading-edge technology, improve core business competence, and faster application development. IT outsourcing has always been a solution to the problem of skills shortage. The IT executives, faced with a shortage of skills and IS/IT expertise, see outsourcing as an important option, as it allows them to better leverage their resources, manage their costs, and focus on core applications to increase IT value to the organisation.

Hence, it can be said with certainty that outsourcing of IS/IT functions/services in the semi-private sector is on an increasing trend, according to the empirical evidence from the questionnaire and the semi-structured interviews. What is not so easily said, however, is why this trend is emerging so strongly and whether it is going in the right direction? Another way of putting these questions is to ask whether all the goals of IT outsourcing have been achieved and requirements met; in other words, were the IT projects successful and had a fruitful outcome?

The main potential risks and disadvantages factors of IT outsourcing were also sought from the empirical survey. It was found that 'hidden cost' has been a major concern throughout the sector. 'Security issues' was the second most critical pitfall of all IT outsourcing arrangements, 'loss of in-house IT capability' was ranked third. 'Loss of flexibility/control' and 'loss of key IT employees' were the fourth and fifth risk factors. In addition, some of the obstacles and difficulties reported to the author are much related to the user interface: lack of computer awareness by users and management at different levels, problems of the quality of the software produced, and organisational resistance to change. Different respondents noted the considerable need for enhanced IT training for staff and users at different levels, more local interaction and international communication, and more evaluation and follow-up on both successful and unsuccessful IT project experience.

In terms of the vendor selection criteria, it was found that 'reputation/preference', 'flexible contract terms' and 'commitment to quality' were the three most important factors in choosing the vendors for the semi-private sector. A factor that was mentioned as being important and ranked fourth in the context of vendor selection was 'price', despite the fact, that in many cases, one of the driving forces for outsourcing is cost reduction, especially in the developed nations.

On the evaluation dimension, 'late delivery', 'low quality services', and 'poor communication' were the three most significant factors in post-implementation evaluation. Other complaints were about the monitoring of, and communication with, the vendors, losing IT knowledge and control of IT projects, and poor communication between the concerned parties. This indicates that the establishment of good vendor relationships may have moderated at least some of the managerial fears and concerns over IT outsourcing. Two gaps were noticeable in this sector. The first relates to the fact that requirements for IT outsourcing are not uniform, and managers have different approaches to the process, and the contractual arrangements have been described by the respondents as "loose agreements".

Further, the real challenge lies in the manageability of increasingly complex outsourcing relationships, many of which will have to be managed accurately. Organisations encounter various other problems in establishing and maintaining the outsourcing relationship (Radosevich, 1996; Smith et al., 1996). They include screening and evaluating of suitable outsourcing partners

from around the world, and the high cost of managing the relationship. Software outsourcing projects in developing countries are influenced by a variety of factors. Due to these, it is very challenging to manage the outsourcing process and project. Therefore, a systematic approach is needed to select the appropriate software producing vendors in particular, and IT outsourcing project vendors in general.

It is obvious that IS/IT outsourcing is a multi-faceted phenomenon that should be studied broadly in the context of developing countries, as this study is the first of its kind. The lesson is that the solutions must make sense for the particular context in which they will be implemented, considering all cultural and environmental factors. Furthermore, it was found that culture plays an important role throughout the outsourcing process. Many cultural dimensions were highlighted throughout the chapter. In this context, it should be borne in mind that many failing IT outsourcing projects were attributed to the lack of understanding of cultural 'sensitive' issues.

The chapter has addressed several key issues in regard to the IT outsourcing phenomenon in the semi-private sector of Kuwait. The insights drawn from this part of the research are especially pertinent to the successful adoption of IS/IT outsourcing practices within the developing countries, because they highlight dilemmas and barriers that are a direct outcome of ad hoc IT outsourcing strategies when little attention is paid to the totality.

In the next chapter, the findings of this research will be synthesised into a set of guidelines proposed for the different sectors of Kuwait, as an example of developing country, to minimise the number of IS/IT outsourcing project failures and increase the number of successful outcomes of IS/IT outsourcing projects.

Chapter Eight

Guidelines for IS/IT Outsourcing

8.1 Introduction

IS/IT outsourcing has both positive and negative consequences on the short and long-term progress and development of an organisation. The guidelines presented in this chapter are the results of the research described in the previous chapters, based on the established literature discussed in Chapters 2 and 3 and on the empirical research discussed in Chapters 5,6, and 7. The guidelines are intended to support those involved in the IS/IT outsourcing decision-making process, especially in the Kuwaiti environment, and in other 'similar' developing countries (e.g. GCC countries). When using the guidelines, decision-makers in Kuwait will benefit from the lessons and information learned from previous IS/IT outsourcing arrangements and practices by their peers in other organisations in the different sectors of Kuwait. The guidelines are intended to be concise. However, they may not be applicable to every situation. They contain practical checklists, explanations and suggestions designed to be of value during the different stages leading up to vendor selection and managing the relationship in an appropriate way to maximise the 'actual' benefits gained throughout the lifetime of the IS/IT outsourcing arrangements.

In summary, the generic aim of these proposed IS/IT outsourcing guidelines is to illustrate that IS/IT outsourcing should be carried out from a strategic perspective and integrated into the overall organisational strategy. The guidelines attempt to overcome some of the problems and shortcomings associated with outsourcing IS/IT services/functions by integrating a number of key strands related to the phenomenon.

8.2 Guidelines Coverage and Targets

The guidelines cover all phases of the IS/IT outsourcing decision-making process, from the initial sourcing decisions to managing and terminating the IS/IT outsourcing relationship. The selection of such an IT strategy, as a part of the general IT strategy, should be integrated or linked as a core component into the general business and organisational objectives. As noted by Willcocks et al. (1996, p.337), "IT outsourcing must be part of an overall strategic framework that takes into account business, IS and IT objectives and requirements"

The guidelines are structured in this chapter according to the issues raised in the previous chapters. However, there are some important general points which have to be addressed as necessary requirements before discussing the guidelines in detail.

The guidelines are designed to be used by IT authorities and executives in the different organisations in Kuwait in making decisions on IS/IT outsourcing functions, services and activities.

8.3 Summary of Findings

The role of IS/IT outsourcing in its various forms has, in recent years, achieved considerable prominence in the search for IS/IT solutions. However, outsourcing is a two-way street, sometimes the failure is not with the vendor, it is with the client, especially when the client does not have a clear vision of what the expectations are of such a relationship.

The research has a number of implications for decision-making and the management of outsourcing arrangements. Outsourcing is advisable only in situations where the advantages of scale can be ascertained, sufficient vendors are available, and the requirements for services can be specified in advance. Organisations selecting outsourcing strategies should be aware of the fact that IS/IT outsourcing brings about tremendous change in the IS/IT organisation, thus a carefully orchestrated 'change management' strategy and process is necessary in order to manage this change (Palvia, 1995).

There are a number of observations which have been made in this thesis from both the literature review and the empirical work, and they are briefly summarised before presenting the guidelines.

8.3.1 Environmental Issues

The notion of organisations as "organic" suggests that organisations, like human beings, both affect and are affected by the environment (Morgan, 1986). Under this paradigm, organisations are seen as open systems. Kern and Willcocks (1996) argue that one of the reasons for the failures of contracts and the high rate of problems organisations encounter in their outsourcing arrangements is due to a lack of analysis of environmental factors that will bear on the outsourcing deals. Duncan (1972) states that "the external environment is the set of relevant physical and social factors outside the boundary of an organisation that are taken into consideration during organisational decision making". Farmer and Richman (1970) identified four categories of environmental constraints, educational, sociological-cultural, legal-political, and economic. Ives et al. (1980) presented environmental variables that "define the resources and constraints" of the IS function. For example, the external environment includes the following: legal, social, political, cultural, economic, educational, resource and industry considerations. Also, they stressed the importance of considering the "organisational environment", which is marked by "organisational goals, tasks, structure, volatility, and management philosophy/style" (p. 916). Environmental factors can both contribute to, or hinder, the successful implementation of IT projects in developing countries (Enns and Huff, 1999). Hanna et al. (1995) outline the environmental characteristics of developing countries which influence IS management. A large number of these studies follow the success factor approach in relating IS management to organisational contexts, such as size, IS development approach, user participation, management structures, styles, etc. Some other studies note the dependence of IS management on external factors such as shortage of skilled manpower, government policies, infrastructure availability, socio-cultural aspects, etc.

Open Systems Theory (OST) emphasises the fact that organisations are interdependent on their environment for resources and should substantiate the external factors that influence the whole organisation (Parsons, 1951). To underpin this point, the analysis of an organisation is said to be closed when the organisation is studied in complete isolation from the social, economic, and political environment in which it operates (Kern and Willcocks, 1996), whereas the open systems

analysis involves the systematic relation of environmental factors with the function of the organisation (Katz and Khan, 1966). Hence, the use of organic theory leads to the conclusion that organisations need to operate with a level of flexibility equal to the uncertainties faced in the external environment (Harris et al., 1998).

8.3.2 Cultural Issues

Culture is the way people interact with each other and comprises ideas through which people perceive and interpret life. Culture has become a key concept in today's management. Cultural effects pervade all areas of business life, and understanding culture is a crucial issue for successful management of IT.

Among the most important authors who attempted to look at cultures from the societal level as noted in the thesis, are Hofstede (1991) and Trompenaars (1993). Hofstede's theory suggests that management practice and discourse developed in one country will not operate in another. Trompenaars' theory takes another direction, it suggests that every country has a unique culture that differs from others (Choi and Willcocks, 1994). An increasing number of IS/IT applications and projects are being implemented across national and cultural boundaries (Shore and Venkatachalam, 1996). During this transfer process many of these IT applications and projects encounter problems which can be attributed to the differences between the national culture of the headquarters and the host organisations (Roche, 1992; Deans and Ricks, 1993). The lack of success in IT diffusion in the Gulf Cooperation Council (GCC) states can be partially attributed to social and cultural factors (Yavas et al., 1992). An increasing number of IT failure projects in the GCC countries have been attributed mainly to the cultural factors (Yavas et al., 1992 Abdul-Gader, 1999). There is no one single definition which encapsulates the term 'culture' wholly. Hofstede (1991, p.5) defines culture as: "the collective programming of the mind which distinguishes the members of one group or category of people from another". More simply, culture is the shared values of a particular group of people (Erez and Early, 1993), and culture reflects the core values and beliefs of individuals.

Hence, culture is an important ingredient in the identity of the IT products and services themselves, and influences the impact of IT use in different cultures. Problems arise when there is a difference between the culture of an IT product and the culture of its user.

8.3.2.1 Intercultural Communication

Slevin and Pinto (1987) define communications as the provision of an appropriate network and necessary data to all key factors in project implementation. There are a variety of problems of communication across cultural boundaries, which arise from the differences between the different cultures and societies in general. Communication is seen as an exchange of information (e.g. words, ideas, and emotions, non-verbal gestures, and so on) which, in turn, is the carrier of meaning (Trompenaars, 1993). Cross-communication among the different parties can be considered as a part of cultural attitudes, behaviours and norms. Rimington (1995) argues that "effective communication" can be considered as one of the important foundations for project success. Rimington, moreover, remarks that according to some studies, "effective communication" can be achieved through understanding cross-cultural differences, indicating the importance of considering the way through which effective communication can take place (Kirkham, 1994).

There are two major ways in which communication serves IT actors. One of these involves communication as an important means used by the IT transferrer in communicating the know-how (knowledge) to the transferee, which is necessary to operate the transferred IT.

The second way, which concerns us here more, in which communication serves IT actors is when it represents an important and effective means of exchanging information through which the system requirements are communicated.

Therefore, effective communication between actors (e.g. vendors, users, proposers, purchasers, developers, etc.) can play a major role in IT project success (Odedra, 1990). Because of the importance of the communication, it can therefore be said that effective communication across cultures is the first requirement for the success of any IT project.

Kern (1997, P. 46) also argues that keeping a "communication mechanism" with the vendor is an absolute necessity, as it has many positive results, including leading to "greater trust" among the concerned parties. Hakansson and Snehota (1995) distinguish two types of communication mechanisms. The first is formal communication, which is characterised by 'hard facts', such as technical, legal, or commercial data, whereas the informal communication is more likely to be personal, supportive, or 'soft data'. Essentially, Kern (1997) found in his empirical study that having "wrong communicators at key interface points can lead to conflicts, dissatisfaction, and the eventual breakdown of the total outsourcing deal" (p. 53).

Of the 25 IT managers interviewed , 17 of them attributed the problems of failure to the absence of successful and effective cultural communication, and also to the differences existing between the clients and vendors. The interviewees linked their projects' failure mainly to poor communication (i.e. ineffective cross-cultural communication) between the vendors and the clients. This line of argument is also extended globally. For example, Lyytinen and Hirschheim (1987) reported that at least half of all IT projects are failures. Some were caused by cultural differences (Wright and Wright, 1994).

In sum, the main communication problems as identified in Kuwait by the interviewees included: wrong systems specifications, incorrect requirement analysis, insufficient and wrong training, using a global general solution for a specific local problem, and computer illiteracy versus computer technical jargon used by the vendors and IT sellers.

8.3.3 IT Transfer

Outsourcing can be seen as a pivotal tool for Information Technology Transfer (ITT). However, this issue must be addressed from two dimensions, 'hard' issues and 'soft' issues. The former refers to the technology, equipment, software, and hardware, while the latter is concerned with people, skills, procedures and data. ITT may be defined as the movement of information technology from creators to users (Cunningham and Sarayrah, 1994). ITT, it can be argued, is the process of transferring IT technology, from (usually) an industrial nation to another industrial or developing nation in a modified form, "needed to support information systems" (French, 1996,

p.2). In addition, according to Samli (1985, p.8), ITT is the transfer of "all the hardware, software, and other supporting activity" to handle information systems.

Many scholars have argued that 'as-is' Western IT cannot be transferred successfully and utilised effectively. Since cultural differences can cause problems in ITT among the industrial countries themselves (McDerment, 1989), they should thus be given enhanced consideration and priority of attention when transferring IT from the developed to developing countries (Nicolet, 1992). The process can be more complex, and the problems can be more severe. Specifically, when attempting to transfer IT through an outsourcing strategy, due attention must be given to the national culture of the country of incorporation. As research indicates, one of the central problems in ITT is communication, the main cultural dimension, with different cultures ascribing different meanings to different terms, which are derived from different values, beliefs, and norms. Straub et al. (1997) attribute much of the "ITT problematic" to what they call "cultural bias" in favour of their own social and cultural system, as the industrialised nations produce the IT technology.

In sum, the acceptance of the transferred IT will depend on the culture of the parties involved, the party that supplies IT and the party that will operate and utilise it. For this reason, one of the major steps towards initiating IT transfer is to assess the cultural differences between the sending and receiving countries in order to identify the extent and the effect of these differences and the amount of attention required to be dealt with them successfully (Nicolet, 1992).

8.3.4 Management Issues

There are several important IT management issues which need to be taken into consideration. They are directly related to the success or the failure of IS/IT outsourcing projects. Before an organisation outsources, it must carefully analyse how IT fits in with its core competencies, and then have clear goals, objectives, and benchmarks in place so that a suitable vendor is selected. Clearly defining these expectations with the vendor will help ensure that a good relationship is maintained with the vendor throughout the term of the agreement. The complexity of an outsourcing arrangement requires organisations to ensure good communications with the vendor from the very beginning of the relationship. Organisations must also be willing to work side by side with their vendor to ensure satisfactory results.

An organisation whose strategic decision-making has pointed to IS/IT outsourcing should ensure that it possesses enough management capability to address all the important issues surrounding the IS/IT outsourcing phenomenon, including:

8.3.4.1 IT Strategy Formulation Aligned with Organisational Strategy

Several issues must be taken into consideration, including:

- An organisation should not 'drift' towards IS/IT outsourcing. There needs to be a clear strategy to identify what to keep in-house and what can be outsourced effectively. Also, in this context, the resources and capabilities of an organisation are the central consideration in formulating its strategy (Grant, 1991). He emphasises that the strategy has to address or identify the "resource gaps" which need to be filled by the IS/IT outsourcing strategy.
- There is a strong relationship between IT outsourcing and information planning and strategy (De Looff, 1997). IS/IT outsourcing plans must be incorporated or integrated into the general IT strategy. At the same time alignment of business and organisational objectives and IT strategy must be carried out. In other words, outsourcing plans should not be dealt with as a 'quick fix panacea', and should be considered from a strategic perspective.
- The degree of uncertainty about future business environment and requirements, and hence longer term IS/IT needs, necessitates the addressing of these 'critical' issues as part of the IS/IT strategy.

In broad terms, an effective policy is not to outsource core IS/IT applications, activities and services.

8.3.4.2 Top Management Support

Slevin and Pinto (1987) define top management support as the willingness of senior management to provide the necessary resources and authority for project success. Welti (1999) indicates that active top management support is important to provide enough resources, fast decisions, and support for the acceptance of the project through the organisation. The lack of top management involvement and support is always an issue of concern. The information technology literature is

replete with studies that emphasise the importance of top management support in making progressive use of IT (Grover and Goslar, 1993; Keil et al., 1998). Top management support can facilitate implementation of new IT strategies in various ways. It is crucial for mobilising resources for implementing the IT strategy. Top management must help with the political and budget allocation issues that often arise in these types of situations. Top management can also encourage different functional managers to cooperate to provide the information required for successful adoption of IT outsourcing strategies. Thus, strong top management commitment is an essential ingredient for a successful adoption of IT outsourcing. Keil et al. (1998), based on their empirical study, identified the 11 most critical software project risk factors and found that "lack of top management commitment to the project" is the most important risk factor. Finally, with the support of top management, an effective decision-making process can be initiated and completed. However, it should noted here that most, if not all, of the top management executives in the Kuwaiti public organisations are lacking crucial awareness and adequate knowledge of IT in general. This line of argument is supported by Abdul-Gader (1999) and Aladwani (2000).

As has been discussed earlier, a crucial finding was the considerable lack of understanding among top management about IT in the three sectors as a potential business operation tool. It was also found that senior and top management are poor at formulating IT strategies, with decisions on outsourcing being mostly initiated by IT managers.

8.3.4.3 Co-operation and Close Links with End User Departments

Lack of cooperation by the end user department is a similar problem to lack of top management involvement. The work of Bloomfield (1992) discusses the "social within the technical" concept, whereby the principle of user involvement may be included if all affected users can debate the design of the IT systems. Studies conducted by Baroudi et al. (1986) and McKeen et al. (1994) indicate that user participation has a direct relationship with the user satisfaction and IT system usage. Furthermore, user participation has a positive influence on the successful outcome of systems implementation (Tait and Vessey, 1988; Lin and Shao, 2000). This implies that getting the users involved in the development process may improve their attitudes towards the systems, and enhance the users' perception of the importance of the system (Lin and Shao, 2000). According to

Donal (1998) the user factor is one of the "non-technical issues" the ignorance of which can contribute to many system failures.

It was found from the empirical study that one of the reasons for failing IT projects in Kuwait was lack of commitment and involvement of the end user departments, as was evident in one case of a major IT project failure in a governmental organisation.

8.3.4.4 Core Functions Versus Non-core Functions

There is a belief that IS/IT outsourcing is only appropriate when IS is not considered a core function of organisations. Core activities are defined by the organisation's management as those that provide the competitive capabilities that lead to competitive advantage (Prahalad and Hamel, 1990; McLellan, 1993). This definition implies that a core activity is central to the competitive nature of the organisation. Lacity and Willcocks (2001) call for "identifying non-core IT capabilities for potential outsourcing". This line of argument is supported by many IS/IT outsourcing researchers (e.g. Lacity and Hirschheim, 1993; Lacity and Hirschheim, 1995; Lacity et al., 1996; Feeny and Willcocks, 1999; Lacity and Willcocks, 2001).

IS/IT applications, activities and services in most of the Kuwaiti organisations are looked at as non-core activities. They do not believe strongly that IS/IT may have the competency that provides the competitive capabilities that lead to competitive advantage. However, two industries have different views. The banking and the oil sector have looked to IT as a core function and potential source of competitive advantage.

8.3.4.5 IT Project Management Skills

Yeates (1991) argues that "project management for information systems" is very significant if an organisation would like to see IT system projects implemented on time, within budget and to quality. Yeates added that this is not an easy task and there are many pitfalls along the way. Equally, Keil et al. (1998) based on their empirical study designed to identify the most critical software project risk factors, found that "lack of required knowledge /skills in the project personnel" was among the 11 top risk factors that have led to the failing of IT projects in the USA,

Finland, and Hong Kong. Slevin and Pinto (1987) pointed out that in order to manage a project successfully, project managers must be capable of both strategic and tactical project management activities. Project management deals with various aspects of the IT project, such as planning, staff selection, organisation, IS acquisition, and so on (Peak, 2000). Hoffer et al. (1998) note that the project management activities span the life of the project from initiating the project to closing it. In the same vein, Peak (2000) argues that project management is necessary to govern a project and to deliver quality products. Zellouf et al. (1995) argue that "blame for software project failure is often laid, not on technical difficulties, but on organisation of the work and co-ordination of the activities of the team". Cerullo (1994) argues that to assess "the riskiness of an IS project" is to assist managers to make better decisions, leading to the greater possibility of installing a successful application". Finally Wateridge (1995) states "project managers should be concentrating on success criteria....and, consequently, the factors that deliver those success criteria". On the basis of the above, one could argue that:

- Human factors are still a major issue in IT project failures;
- Effective communication between the different team members is essential;
- Cross-cultural communication is likely to be a barrier to effective communication and thus effective IT project success.

Software outsourcing projects in developing countries are influenced by a variety of factors. Due to these, it is very challenging to manage the outsourcing process and project. Therefore, a systematic approach is needed to select the appropriate software producing vendors in particular, and the IT outsourcing project vendors in general. As noted previously, lack of knowledge and planning in IT project management was seen as an inhibitor of a successful result in a number of IT projects in Kuwait. Some of the problems reported in regard to IT project management were: incorrect and sometimes changing requirements; lack of standardisation of the process; difficulty in estimating and planning accurately; lack of techniques for measuring the quality of performance; and project team composition, who is responsible for what; lack of 'appropriate' monitoring and control measures; and finally lack of the understanding of the IT project process.

8.3.5 IT Personnel/Skills

One of the key factors which determines the success or failure of any IT project is the availability of appropriately trained personnel who are involved in different aspects of using IT equipment. Unfortunately, this area of human resources is often overlooked, or not given the necessary attention, and as a result, the projects are less than successful (Mundy, 1996). The human resources issues are broadly classified into lack of IT personnel, training IT personnel, and limited career advancement opportunities (Klass et al., 1999; Bingi et al., 2000). Moreover, Avgerou and Cornford (1998) attribute the failure of IS/IT projects to the lack of skilled staff to build "the required technical components or to maintain them" (p. 51). Furthermore, Diromualdo and Gurbaxani (1998) point out that IS/IT outsourcing is playing an important role in filling the gap that organisations are confronted with in terms of the wide disparity of skills and capabilities necessary to realise the potential of IT.

Some 'critical' IS/IT skills may best be retained in-house. For example, IS/IT skills crucial to IT strategy planning and formulation should ideally be retained in-house. Other critical skills are also required for 'monitoring IT outsourcing contracts', 'management of outsourced services/contracts', 'business systems development', 'project management', 'management of vendor/customer relationship' and these should primarily be kept in-house. These classifications are in agreement with existing literature (Willcocks and Fitzgerald, 1996; Currie and Willcocks, 1997a; Vowler, 1997). It is no wonder then that one of the major barriers in the successful dissemination of IT technology in the developing countries, like Kuwait, is the shortage of skills (Avgerou, 1993).

One of the prime motivating factors for IS/IT outsourcing found in the three different sectors of Kuwait was the 'shortage of technical staff'. It was emphasised during the interviews that there is a continuing difficulty of finding qualified and skilled IT manpower. Further, there is a broad agreement in the three sectors of Kuwait and in large and small organisations about the 'rocketing' need for new skills to negotiate, implement, and manage the IS/IT outsourcing deals.

8.3.6 Reasons or Motivations for IS/IT Outsourcing

The growth of IS/IT outsourcing as an important IT strategy can be attributed to a number of factors. The most important consideration when organisations think about outsourcing is the benefits that the organisations could obtain (Yang and Huang, 2000). Altinkermer et al. (1994) stress that the organisation should carefully examine all the potential benefits and risks of outsourcing in order to facilitate or gain more understanding of various issues which will help the top management to make "knowledgeable decisions about outsourcing" (p.252). Much previous research has concentrated on the advantages and disadvantages of outsourcing (see, for example, Loh and Venkatraman, 1992a; Lacity and Hirschheim, 1993; Ketler and Walstrom, 1993; Grover et al., 1994; Loh, 1994; Lacity and Willcocks, 2001). There are many reasons why organisations consider IS/IT outsourcing. The motivations for IS/IT outsourcing have been proposed in terms of three main types of expected potential benefits: strategic, economic, and technological (Loh and Venkatraman, 1991; McFarlan and Nolan, 1995; Grover et al., 1996, Yang and Huang, 2000).

The most noticeable trend that has been discovered through this research has been a change in the motives that drive organisations to outsource. During the recession in the early 1990s, organisations in the developed economies were more likely to base their outsourcing decision solely on financial concerns. Outsourcing was often associated with organisations that were financially unstable. More recently, organisations have been citing strategic reasons for outsourcing. In the future, these decisions are likely to be based on both strategic and financial reasons, depending on how individual organisations value their IT resources. Those organisations that consider parts or all of their IT as a simple commodity will likely put greater emphasis on costs, whereas those that view IT as a vital function that is a part of their core competencies will be looking to outsourcing purely for strategic motives. In contrast, motives that drive organisations in Kuwait were mostly attached to unavailability of internal resources (e.g. IT skills and expertise), and the fact remains that the cost factor was lagging behind.

In terms of the perceived advantages of IS/IT outsourcing strategy for the public sector, all organisations recognised its importance. Resources are not available internally, gain access to leading-edge technology, and faster application development were the key 'perceived' advantages of IS/IT outsourcing.

For the private sector, shortage of technical staff, resources not available internally, faster application development and gaining access to leading-edge technology, were the primary 'perceived' advantages of IT outsourcing.

The perceived benefits and main motivations of IS/IT outsourcing which have been favoured in the semi-private sector included: shortage of technical staff, resources are not available internally, gain access to leading-edge technology, improve core business competence, and faster application development.

8.3.7 Risk Factors in IS/IT Outsourcing

IT outsourcing, as a legitimate management strategy, has deficiencies and drawbacks as well as having several advantages. There are several disadvantages to adopting outsourcing strategies. Jurison (1995) provided a theoretical risk-return analytical mode for making IT outsourcing decisions. Similarly, Willcocks and Lacity (1999) investigated 'risk mitigation tactics' using a single case study. Willcocks (1998) generated risk reduction guidelines from studying 40 organisations and their IT outsourcing practices. Additionally, Elitzur and Wensley (1998) argue that information systems are subject to a variety of different types of risks. The types of risk that will be relevant to IT outsourcing will vary according to the nature of the products/services covered by the outsourcing arrangement. In addition, Currie and Willcocks (1998b) note that a relationship exists between the scale of IT outsourcing and risk.

For the public sector, it was found that security issues have been a major concern throughout the sector. Ability to operate or manage new systems, loss of key IT employees, and hidden cost were the other critical pitfalls of IS/IT outsourcing arrangements.

For the private sector, the main risk factors of IT outsourcing were also sought from the empirical survey. It was found that security issues have again been a major concern throughout the sector. Hidden cost was the second most critical pitfall of all IT outsourcing arrangements, and loss of flexibility and control was ranked third.

For the semi-private sector, it was found that hidden cost has been a major concern throughout the sector. Security issues was the second most critical pitfall of all IT outsourcing arrangements, loss of in-house IT capability was ranked third. Loss of flexibility/control and loss of key IT employees were the fourth and fifth risk factors.

8.3.8 Decision-Making Process and Strategies for IS/IT Outsourcing

Some organisations have experienced success with their outsourcing strategies, while others have experienced failure (Rochester and Douglas, 1990, 1993; Lacity and Hirschheim, 1993). One explanation for some of the failures is the complexity of IS/IT outsourcing decisions (Loh and Venkatramn, 1992a,b; Lacity and Hirschheim, 1993). Another explanation that was mentioned about the failure of IT outsourcing is the lack of decision models and tools to help managers systematically analyse outsourcing decisions (Chaundry et al., 1992; Reponen, 1993; Alpar and Saharia, 1995). Based on his empirical study, De Looff (1997) pointed out that "lack of systematic analysis was observed in the early stages of most outsourcing decisions" (p.169). He added that IT outsourcing decisions should start with analysing "the current situation thoroughly, examining the problems ...to consider outsourcing and evaluating all available internal and external alternatives"

A conventional view is that all new and strategically important functions/tasks should be performed internally. On outsourcing, there is no general solution that can be applied to each and every specific case but, as argued through the thesis, there is a clear need to analyse the particulars of each situation.

It is therefore very difficult to say definitely which of the alternatives, internally or externally, leads to a better solution of the problems in utilising IT technology effectively. The factors influencing the decision are very contextual. A contextual variable refers to an influencing factor on an organisation and a structural variable refers to an element of structure that is influenced (Butler, 1991). Hence, a detailed picture of the internal and the external contextual factors will help in paving the road to a better decision-making process and perhaps to better decision on whether to outsource IS/IT services or not. Three key decision areas of outsourcing can be discerned. The first, and still dominant, is contract drafting and the legal dimension. The second, strategy, must shift from IT needs to include all IS demands which can be divided into three levels:

strategic, project and operational, a line of argument supported by Willcocks (1994). The third, and most important, is vendor selection procedure and 'on-going' evaluation during the lifetime of the contract. Lacity et al. (1996) found that those with successful experiences with IT outsourcing use a reasoned, incremental, and selective approach. They also showed that three issues have to be considered on IT outsourcing; these are (1) selecting which IT activities to outsource, (2) comparing with in-house capability, and (3) selecting an appropriate outsourcing contract. Overall, outsourcing decisions must be based upon an understanding and examination of all related issues. Organisations must not consider outsourcing as a quick fix panacea for their weak IT management (Earl, 1996). However, a multi-sourcing strategy seems to be effective when organisations insource their strategic IT functions and assign outsourcing of non-critical (i.e. non-core) components to external service providers (Lacity et al., 1996).

For the public sector, most, if not all, of the top management executives in the Kuwaiti public organisations are lacking crucial awareness and adequate knowledge of IT in general. This finding is supported by Abdul-Gader (1999), who found a severe lack of sufficient computer knowledge among middle and top management in the public sector of Arab Gulf states. They mostly believe that IT is mainly supportive/operational (i.e. non-core), and therefore, lack of top management support and commitment is a continuous problem facing the IT departments in the government sector.

For the private sector, neither the top management nor the MIS executives have any major decision initiation on IT outsourcing. The lack of top management involvement and support is always an issue of concern. It is obvious that the two sectors are facing a common problem as lack of top management involvement and support is an issue of concern in both public and private sectors.

For the semi-private sector, the IT managers mostly initiate the decision on IS/IT outsourcing. Also, it can be noted that neither the top management nor the MIS executives have any major decision initiation on IT outsourcing.

Another difference between the sectors can be recognised in the responses to another question. In the public and semi-private sectors, the majority of respondents indicated that no legal

representative would be hired in any outsourcing decision-making process. In the private sector the majority of respondents indicated that a legal representative would be hired in any outsourcing decision-making process.

The majority of organisations in the case of legal disputes with the vendor would prefer to settle legal cases locally despite the clear weakness of the local IT legislation system. A large majority of the organisations prefer to address these legal issues in a specific way when the contracts and agreements are drafted with IS/IT vendors. This view is common to all three sectors.

8.3.9 Vendor Selection

The vendor is the external IS/IT service provider. Michell (1994) found that vendor definitions of outsourcing varied according to "the business needs and position in the market" (p. 224). Also, the range of IS services offered by IT vendors is large and growing rapidly. While discussing the demand side of the client organisations in their search for the 'best' vendor, it should be borne in mind that the process of selecting and evaluating a vendor is to be viewed as "important" and treated "seriously" (Michell and Fitzgerald, 1997, p. 232). In fact, the vendor selection process requires a great deal of attention and should not be taken in a rush. Willcocks et al. (1996) state "vendors are also in high competition against one another over clients and contracts. It falls ultimately on the client organisation to identify the strength of possible vendors against the client's own identified requirements" (p. 350). Make sure the vendor is looking for a long-term business relationship and is not in it for a quick profit and then get out. As Michell and Fitzgerald (1997) argue, vendors are not all alike and the vendor selection process must match not only 'hard' track record, financial stability, quality and IT capability requirements, but also understand the 'softer' issues of vendor vision, culture, background and IT human resources management issues. Based on his empirical study De Looff (1997) points out that the selection of vendors was often influenced "largely by personal impressions" of decision makers, and by the "persuasive presentations" of vendors.

For the public sector, in terms of the vendor selection criteria, it was found that reputation/preference, commitment to quality, and price were the most important factors in choosing the vendors for the public sector.

In terms of the vendor selection criteria, it was found that commitment to quality, reputation/preference, and flexible contract terms were the most important three factors in choosing the vendors for the private sector.

In terms of the vendor selection criteria, it was found that reputation/preference, flexible contract terms and commitment to quality were the most important three factors in choosing the vendors for the semi-private sector.

8.3.10 Contract Drafting

A contract is defined as " an agreement between two or more people or organisations, 'parties' to the contract, which creates rights and obligations for those parties. These obligations can be legally enforced by a party who is entitled to their benefits" (Klinger and Burnett, 1994, p. 58). It is normally "a bargain made between at least two parties with an offer by one party which has been accepted by the other party with some benefits gained" (Klinger and Burnett, 1994, p. 59). A contract enables the different parties to achieve their strategic and commercial aims. A good contract is often the central key to a successful IT outsourcing relationship (Lee, 1995). As Lacity and Hirschheim (1993, p.243) state, " the contract is the only mechanism that establishes a balance of power in the outsourcing relationship". Harris et al. (1998) say that IS/IT outsourcing contracts are "complex" and should be negotiated over a long period of time (Currie, 1995). Fitzgerald and Willcocks (1994) found that good relationship cannot substitute for poor contracting. The outsourcing relationship depends largely on the initial 'contractual stage', as it greatly influences the quality of the relationship (Lacity and Hirschheim, 1993; Fitzgerald and Willcocks, 1994a). The contract and/or service level agreement specifies in detail the exchanges of services and/or products, financial arrangements, service enforcement and monitoring methods, communication and/or information exchanges, key contact points, and general working context (Kern, 1997). Flexibility at the contractual level is highly necessary (Easton, 1992; Kern, 1997), since some changes, a turbulent business environment, and perhaps adjustments may be important in the foreseeable future. Currie and Irani (1999) stress the importance of considering the "risk assessment" while examining the outsourcing contracts. A service level agreement (SLA) is usually a major part of any outsourcing contract, and has been considered as the most component of any outsourcing deal (Klinger and Burnett, 1994; Kliem, 1999). By far, the biggest concerns for

IT directors are preparing the SLA and managing the vendors after the award of contracts (Rothery and Robertson, 1995).

For the public sector, the empirical results clearly point out that IT managers or senior IT staff and legal/law departments are those who are drafting and revising the contract for all outsourcing practices, despite the fact that the legal departments have no solid background on IT operations and the technical and functional terms. The study also shows that the public organisations in the case of legal disputes with the vendor would prefer to settle legal cases locally.

For the private sector, survey results clearly point out that IT managers are those generally responsible for drafting and revising the contract for all outsourcing practices, It is worth noting that the legal/law departments clearly play a smaller role in the drafting and contracting of contracts.

For the semi-private sector, the IT department and legal/law departments participate in the drafting and revising of outsourcing contracts.

8.3.11 Managing Client/Vendor Relationship

The key to a successful outsourcing arrangement is the relationship between the client and the vendor organisation (Ketler and Walstrom, 1993). In fact, the outsourcing relationship reflects the roles to be played by each of the parties once an outsourcing decision is made, and also the way in which each one will relate to the other. Willcocks et al. (1999) believe that "the area in IT outsourcing that has received the least research attention so far is the relationship issue" (p. 290), and particularly the characteristics that determine "effective and ineffective outsourcing relationships". Rothery and Robertson (1995) argue that the "skills needed to manage the supplier relationship were frequently underestimated" (p.111). Clark et al. (1998) argue that the key to a successful vendor relationship is flexibility. The ability to manage and sustain outsourcing relationships is critical to the success of the IS/IT outsourcing project. Building client-supplier relationships to support effective outsourcing can be difficult if not enough attention is paid to its internal structure (Radosevich, 1996; Smith et al., 1996). Diromualdo and Gurbaxani (1998) have suggested some factors which are quite important in maintaining a successful relationship with the

vendor. These include, "contract type, decision rights, performance measures, and risk-and-reward allocation schemes"; all have to be aligned with the "strategic intent" underlying the outsourcing initiatives. At the same time, research by Currie and Willcocks (1998a) identified four distinctive types of IS/IT outsourcing decisions (relationships): total IT outsourcing, multiple supplier sourcing, joint venture/strategic alliance sourcing, and finally insourcing (retaining an in-house IT department). Kern (1997) argues that the outcomes that come from the outsourcing deals can be characterised by commitment and trust, satisfaction and expectation, co-operation and conflict, and power and dependency. He further notes that commitment and trust are 'interdependent', as greater commitment leads to greater trust and vice versa.

The great majority, if not all, of the Kuwaiti organisations in the different sectors prefer a short-term relationship (i.e. 1-3 years). Very few organisations prefer an over-3 years type of relationship. The main reason for the short-term (i.e. trial and error approach) to IS/IT outsourcing arrangements is the poor definition of role and service which permeates the practice of IT outsourcing. Without the guidelines afforded by clear role definitions, service level agreements and delivery expectations, there is no rule book by which to operate. Without a set of rules to fall back on when any conflict occurs, the result is chaos and confusion. It is easier when the ad hoc contracting arrangements dominate. At least it would not be very costly compared with total outsourcing. From the vendor perspectives, it was also found that due to social, environmental and political reasons, the major IT vendors (i.e. foreign subsidiaries) would not favour or like to establish a long-term commitment.

8.3.12 Post-Implementation Evaluation

The continuing growth of IS/IT outsourcing does not necessarily imply that there exist satisfied clients/customers. Nearly 70 per cent of the organisations which have undergone IS/IT outsourcing deals expressed dissatisfaction with one or more aspects of their IT service providers (Lacity et al., 1995). Other researchers have found similar results (Currie, 1995; Currie and Willcocks, 1997). Willcocks et al. (1996) also explored many difficulties and limitations in IT evaluation practices that organisations face. To elaborate, very few organisations operate an "integrated evaluation system covering strategic, business, end-user and technical performance across a system's lifetime" (Willcocks, 1994; Willcocks et al., 1996). Lacity and Hirschheim (1993) claim that the

"failures of outsourcing are under-represented". Moreover, it could be argued that the success rate of outsourcing agreements has not been particularly high. For example, Lacity and Hirschheim (1993) reported that, of the organisations that they had studied carefully which had had outsourcing contracts in place for more than twenty years, 60 per cent were dissatisfied and 40 per cent were actively thinking of terminating the agreements. Currie (1995, p. 135) reported the problems of IT outsourcing contracts in the UK public sector organisations, which were described as fivefold. They included: cost escalation, maintaining quality, over-dependence on IT suppliers, lack of supplier flexibility, and lack of management skills to manage the vendors.

From the evaluation dimension in the public sector of Kuwait, many complaints were about late delivery, the monitoring of, and communication, with the vendors, losing IT knowledge and control of IT projects, and poor communication between the concerned parties.

On the evaluation dimension in the private sector, late delivery, low quality services, and further sub-contracting by the prime IT vendor were the three most significant factors in post-implementation evaluation. Other complaints were about the monitoring of, and communication with, the vendors, losing IT knowledge and control of IT projects, and poor communication between the concerned parties.

On the evaluation dimension in the semi-private sector, late delivery, low quality services, and poor communication were the three most significant factors in post-implementation evaluation.
The analysis of the data clearly showed that there was a severe lack of any formal IS/IT outsourcing evaluation methodology on any of the executed outsourcing contracts in the Kuwaiti organisations. This is not really surprising given that many organisations pay little attention to the formal evaluation of IS/IT investments (Farbey et al., 1999). This is supported in Australia where no formal methodology was found either (Lin and Pervan, 2001).

8.4 Guidelines

One of the assumptions of this research is that no single solution or outsourcing option is best for every situation. The optimal IS/IT outsourcing decision will depend on the specific situation. Some IT researchers have conducted empirical research on IS/IT outsourcing to find out whether

certain situational factors coincided with certain sourcing decisions (Loh and Venkatraman, 1992a; Aubert et al., 1994; De Looff, 1997). The decision process of IS/IT outsourcing should consider the situational factors. The success of the IT outsourcing strategy is greatly dependent on the situational factors that influence organisations. This simply means that on outsourcing there is no general solution that can be applied to each and every specific case, rather a careful particular analysis should be undertaken by each organisation intending to outsource.

As pointed out in earlier chapters, the literature presents arguments on why outsourcing is not an appropriate solution in all situations. It should be carefully thought through and continuous evaluation on all dimensions must be carried out. Similarly, this offers evidence for the fact that outsourcing and insourcing can be equally relevant ways of organising IT services. The contingent factors (i.e. organisational factors) are decisive in choosing the solution in each specific case. This research has demonstrated that IS/IT outsourcing is a dynamic process, and unless each case and situation is considered carefully, ad hoc strategies may emerge, and the final outcomes may not be fruitful and possibly result in failure.

One of the objectives of this research is to determine what situational factors should be taken into account when making outsourcing decisions. An outsourcing arrangement that is best for one organisation may be inappropriate for other organisations in other circumstances.

8.4.1 Environmental Issues

The IS/IT strategies should take into consideration the environmental variables that have direct effects on business and IS/IT functions/services. These variables need to be addressed to enable IS/IT managers to function effectively in an international setting. These environmental issues are perhaps more critical to multi-national firms which conduct IT operations in a global setting when they seek work in IS/IT in the developing countries. A list of relevant factors is set out diagrammatically below: (Figure 8.1).

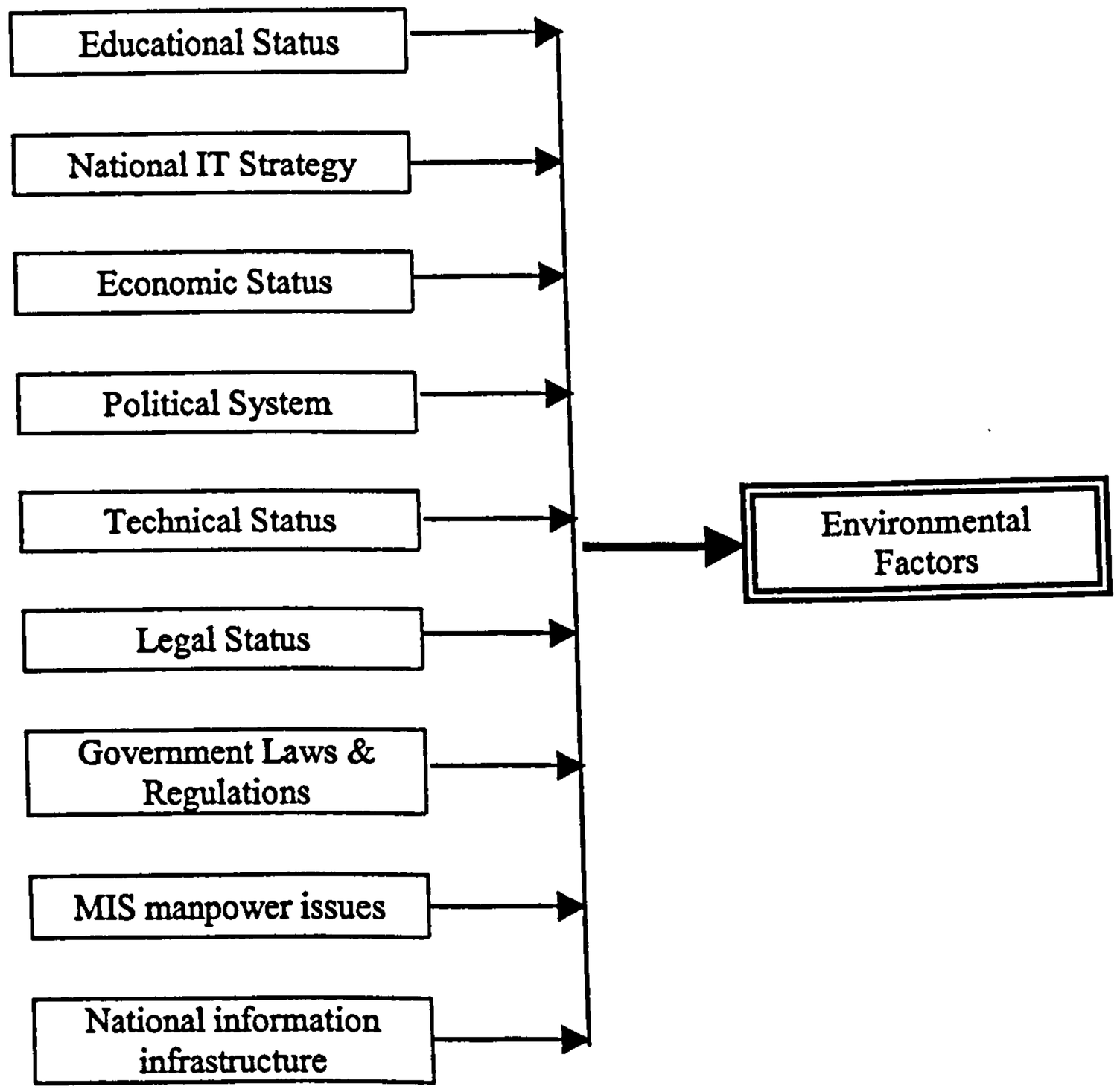


Figure 8.1: Environmental Factors

8.4.2 Cultural Issues

An increasingly international environment requires that IT managers be aware of developments around the world. This 'internationalization' means that staff within global organisations often work with others of a different culture, and staff need to be aware of cultural diversity issues. Attention must be paid to many underlying cultural issues which act as 'recommendations' for vendors willing to work in other cultures, including that: 1) 'new' technical staff who come for IT projects to the developing countries must understand cultural diversity and have some understanding of the culture before they embark on new projects; 2) 'newcomers' must be attentive to the influence of their own cultural values and norms and their interaction with those of others, and adapt whenever necessary and as much as possible; 3) it is necessary to try to accomplish the task required in a way that is appropriate and complementary to the other culture; 4) it is important to encourage all the participants to communicate, thus initiating and enhancing

the resultant interaction; 5) patience and tolerance of ambiguity are required and a readiness to bear some frustration in order to cope with different circumstances and cultures; 6) empathy is critical, trying your best to understand others from their point of view; 7) there is a need for care in using images in reports or presentations, as according to Maddix (1990), studies show that many images do not convey the same meaning in all cultures, some readers may be able to recognise an image but unable to associate it with the originally intended concept.

The following skills are therefore important for IT project managers in the international marketplace (Pheng and Yeong, 2000): effective communication skills; effective leadership skills; good interpersonal skills; adaptability and flexibility; and functional/technical strength. Without these skills, project managers on overseas postings may be hindered by cultural problems which perhaps lead to poor outcomes. Understanding the cultural diversity and differences is another pivotal dimension.

8.4.2.1 Intercultural Communication

To enhance communication between the parties involved, a number of points must be addressed, including: 1) assessing stakeholder requirements which is the first part of this process, and having open channels of communication during this time are vital, everyone concerned should be involved in the process; 2) good communication between all staff involved from the different parties with the IT project is felt to be very important, especially in a project involving staff from different cultures; 3) ensure that there is quality written and verbal communication from the vendor's part; 4) provide the vendors with fully detailed brochures (written in the appropriate language); and 5) make sure that the negotiation team in any organisation with the vendor has enough technical expertise and language competency.

These recommendations may be a key factor influencing the success of IT projects and operations within global settings, especially with multi-national companies like IBM, or Microsoft working in the environment of the developing countries.

8.4.3 IT Transfer

IT Transfer can be accomplished through IS/IT outsourcing. Careful attention must be paid to both 'soft' components, and the 'hard' components for the successful adoption of IS/IT outsourcing projects. The IT technology produced in the developed nations may not work properly in the developing countries for a number of factors discussed previously in the thesis, therefore attention should be paid to both dimensions.

8.4.4 Management Issues

Organisations should have an effective IS/IT outsourcing management process that necessitates a hybrid strategy that takes into account the 'who', the 'how', and the 'what' of the arrangement. There are a number of management issues which are of concern and have to be taken into consideration while contemplating IS/IT outsourcing strategy, including:

8.4.4.1 IT Strategy Formulation

The IS/IT outsourcing approach cannot be decided without having a crystal clear IT strategy. In addition, the IT strategy should be aligned with business and organisational objectives. These strategies must take account of the situational factors in initiating the plans for outsourcing.

A number of 'critical' questions must be addressed about resources and their utilisation dimension before drawing up any IT strategy, including: 1) has the IT function allocated and utilised its resources effectively and efficiently? 2) has the IT function good personnel resources with sufficient expertise? 3) has the IS/IT function been able to budget sufficient resources for IT investments? and 4)has the IT function taken into account future trends in IS and IT? Willcocks (1994) emphasises the need to develop the skills of top/senior management in formulating IT strategy in the light of organisational objectives.

8.4.4.2 Top Management Support

Strategic objectives, such as outsourcing initiatives must come from the top/executive management. Top management must articulate the goals and objectives of the IS/IT outsourcing initiative, and communicate how the process will benefit the organisation. Ongoing management of the relationship is important. Senior management must stay involved during the implementation of the contract. Not only should there be a clearly defined escalation procedure, but top/senior management should meet at appropriate intervals to discuss the outsourcing relationship. Meetings should also be held at the operational level to address the workings of the outsourcing contract in practice, to identify and resolve any problems that have been encountered, and to agree on changes to ensure continued satisfaction.

8.4.4.3 Co-operation and Close Links with End User Departments

End user departments must take part during the initiation and execution of IS/IT outsourcing projects. Much emphasis should be given to increasing user involvement/participation in contract development and in the implementation of IS/IT outsourcing projects. From the outset of initiating the IS IT outsourcing projects, end user departments must have a role to play, which will reduce 'resistance to change' and minimise the level of failure in the IT projects once completed.

8.4.4.4 Core Functions Versus Non-core IT Functions

Organisations must develop a list of potential non-core IS/IT function as candidates for IS/IT outsourcing. If an organisation has a well-developed IT strategy, the list of non-core IT functions can be easily identified. This kind of listing will help the organisations to make a better and faster decision on IS/IT outsourcing as leveraging some non-core IT functions to vendors would put organisations in a better position to concentrate on their competitive advantage functions/services.

8.4.4.5 IT Project Management Skills

Projects are arguably one of the most common ways of managing organisational IS/IT efforts. IT project management skills are critical to the successful outcome of IT outsourcing transactions. A

number of issues have to be taken into consideration, including: 1) mutual 'trust' must be built within the groups working jointly on IS/IT outsourcing projects and in creating the IT project outsourcing team; 2) planning is obviously essential for implementing IT outsourcing projects and a definitive IT project outsourcing plan must be in place; 3) organisations must have an IT project outsourcing leader and develop management skills to manage the vendor relationship and co-ordination; 4) IT outsourcing projects should be initially be directed to small to medium sized projects, gradually increasing as successful experience is gained as well as breaking up the IT project into manageable pieces; 5) progress reporting needs to be regular with reports set against the IT project plan; and 6) working in close co-operation with vendor throughout IT project development, is seen as very important to ensure the success of the project.

8.4.5 IT Personnel Issues/Skills

Perhaps one of the important concerns for organisations contemplating IS/IT outsourcing is the issue of IT skills. Outsourcing does not eliminate the need to manage the IT function/service now performed by a vendor, rather, it creates a situation requiring managers to utilise a different set of skills. The IT skills issue is very important especially for the developing countries like Kuwait, and is often found to be a prime motive for outsourcing. Organisations, therefore, need to focus more on the 'people' aspects, on the involvement of staff at all levels, because it is people who create, define, drive, and maintain the IT systems through: good communication; involvement in the IT planning stages where possible; support and backing; and appropriate training. Organisations must pay attention to the issue of losing 'organisational learning and knowledge ' by relying on the 'expert skills' located at the outsourcing vendor to improve the quality of IS/IT services/functions and applications. A number of important issues in relation to the IT skills may be explored, including: 1) organisations should ensure that sufficient number and quality of in-house staff remain to manage the outsourcing project; 2) discuss the reasons and expected benefits from the outsourcing project with the staff concerned, at the earliest possible stage; 3) a strict coordination mechanism must be designed between the two parties through "standardisation of IT skills and output", advocated as very important by De Looff (1997,p. 59); 4) adequate training so as to provide ongoing IS/IT skills to enable the organisation to carry through the implementation of the IS/IT projects; and 5) review regularly in-house staff IT skills and numbers.

8.4.6 Reasons or Motivations for IS/IT Outsourcing

Outsourcing is undertaken as a result of some motivating factors. These factors must always be clear to the outsourcing organisations. Clear identification of the reasons and impetus for considering outsourcing is important so that the validity of the outsourcing approach can be clearly identified and assessed. Where there are no immediate drivers present, identification of latent drivers will enable the identification of the potential value of IS/IT outsourcing. The motivations must be distinguished from the actual benefits that arise from outsourcing agreements, because it is often the case that the realised benefits are very different from the claimed (perceived) benefits that led managers to choose IS/IT outsourcing. As has been discussed previously, the decision to outsource important IS/IT functions/activities to external vendors cannot be based on the cost/product alone. It should be viewed as a strategic issue requiring an in-depth analysis of risk and opportunities (Ngwenyama and Bryson, 1999), and the reasons for opting for outsourcing should always be on the top of the agenda. If an organisation outsources, for example, because of shortage of skills as the main motive, then during the outsourcing process the organisation should always look to see if their needs in relation to the IT shortage skills have been met.

8.4.7 Risk Factors in IS/IT Outsourcing

Performing a risk analysis and assessment, which identifies, analyses, and prioritises risk factors, that are ultimately associated with IS/IT outsourcing is essential. Outsourcing involves the usual risks of information systems projects and operations in addition to the risks of doing the work through a vendor. Size, complexity, the need for flexibility, newness, and managing an outsourcing relationship, could raise the costs and be potential risk factors. A risk analysis provides the foundation for risk management throughout the lifetime of an outsourcing arrangement. It is not a one-time activity, but rather an ongoing process of identification, assessment, and action, which needs to be well integrated into every part of IS/IT management. IS/IT managers must learn to control both the problems and the potential that risk represents. A number of issues have to addressed while initiating a decision on IS/IT outsourcing, including: 1) attention must be paid throughout the outsourcing process to 'hidden costs' (additional fees and charges imposed during the execution of the IT project); 2) adequate measures are required to deal with threats to data confidentiality; 3) adequate measures are needed to retain IT expertise in-

house; 4) the organisation must not lose control during the IS/IT outsourcing process; 5) adequate measures to analyse any escalation of costs from the vendor side are essential.

In sum, inherent to outsourcing is a reduction of internal control and an increased burden of coordination with vendors. IS/IT outsourcing can prove effective, but it must be realised that vendors will act in their own self-interest, and interests may diverge with the passage of time. Performing a risk analysis and assessment to determine the ways of reducing the risks of IS/IT outsourcing throughout the process is certainly an important step.

8.4.8 Decision-Making Process and Strategies for IS/IT Outsourcing

A decision about IS/IT outsourcing is another pivotal issue. It is integral to the IS/IT outsourcing process and cannot be taken in isolation. Outsourcing decisions should consider all the motivational and risk factors that ultimately decide if IS/IT outsourcing is going to be considered as a strategic approach, the "goal variables" as De Looff (1997) calls them. Evaluating in-house performance is a critical first step in considering IS/IT outsourcing options. In a number of cases it enables organisations to reduce costs and enhance the IT service level prior to outsourcing; it also provides an organisational base of comparison for vendor bids and from which to negotiate a robust contract by making explicit in-house IT costs. Insourcing works for some IT projects.

A number of IS/IT outsourcing strategies may be explored in this context, including: 1) an "incremental IT outsourcing" approach should be adopted (Willcocks et al., 1996) for organisations which did not have any past experience dealing with IS/IT outsourcing arrangements. This simply means that organisations with no past experience start on small or obviously 'discrete' areas, usually to achieve certain goals or objectives by outsourcing one of its IS/IT functions (e.g. networking); 2) a "hard learning approach" (Willcocks et al., 1996) which could stretch from four to eight years that organisations could spend on building expertise and experience on how to tackle different IS/IT outsourcing issues; 3) a "strategic approach" (Willcocks et al., 1996) to IS/IT outsourcing where organisations embark on large-scale total outsourcing projects.

Puryear (1993) recommends that organisations should consider a multi-sourcing option (i.e. selective outsourcing). In this approach, the client is delegating the responsibility for a particular IT service, but the overall management remains with the organisation (Riccuiti, 1994). In most cases, when the work is done, the vendor will eventually hand the responsibility back to the customer. The types of outsourcing provided with this method are as follows: rehabilitation and return: with this approach, temporary outsourcing takes place where the vendor is charged with improving the software and returning control to the organisation; capability development: here the vendor develops the software and turns the software over to the in-house IT department; transition assistance: here the vendor takes over legacy systems while the in-house IT department focuses on new technology.

In sum, the decision-making process on IT outsourcing is a 'complicated' issue. The strategic IS/IT outsourcing decision needs to be checked against a number of other factors. Organisations must understand the IS/IT outsourcing options, the IT senior staff must be approached and consulted throughout the decision-making process on IS/IT outsourcing, and finally a selective IS/IT outsourcing strategy may be the best option for the Kuwaiti environment.

8.4.9 Vendor Selection

Vendor selection is another important dimension in the IS/IT outsourcing process. From the perspective of clients/customers, a number of pivotal points should be considered, including: the selection process should not be based on 'subjective' factors like personal contacts, and impressions, vendor reputation (i.e. well-known brand names), or 'persuasive presentations', but rather, on a clear pre-qualifications procedure to assess the vendors' financial capability, IS/IT technical expertise, management skills, experience of similar IT projects (i.e. track record), CV. of key employees, scope of resources. In the same vein, over-reliance on a single vendor might be a wrong policy in most cases, use a prime vendor, regularly review the IS/IT outsourcing marketplace to identify 'new' trends and changes, employ the right procedures and a detailed process for approaching IT vendors, make sure that the vendor has the ability to add value to the IS/IT service, and always search the vendors' marketplace for new IS/IT outsourcing opportunities. Negotiations with vendors should include top management and IT managers, and monitor the vendor's resource levels and business knowledge at regular intervals. Visiting the

vendors at their place of operation may be sensible, particularly where vendors are recent arrivals or seem to be 'small scale'.

At the same time, avoid vague talk of "partnership" as Lacity and Hirschheim (1995) argue. Vendors may encourage their clients to form a 'strategic partnership' in a spirit of trust. This has proved a poor option for managing vendors because the two parties lack shared goals. Rather call for tenders with a very accurate case description, a very clear procedure for 'turnkey solutions' or total solutions, and draw up clear criteria for analysing tender responses.

8.4.10 Contract Drafting

Prior to entering into an outsourcing contract, several activities are needed to ensure the contract is awarded to the firm most compatible with the needs of the outsourcing organization. These activities include: conducting a detailed situational analysis; preparing a Request for Proposals (RFP); pre-qualification of vendors; and bid evaluation and contract award to the vendors.

Preparation of the RFP is also an important step in the outsourcing process as it ensures that all potential vendors of IS/IT services have the same understanding of the IS/IT applications/services desired. In addition, the document should also explain the objectives for the proposed outsourcing operation. These IS/IT specifications explain the details of the services required and the timeframe in which they are required. The RFP will also serve as a standard to evaluate contractor performance. As a result of the critical nature of the RFP, it should be prepared by staff having specialised expertise in IS/IT requirements. Hence, the contract should be designed by legal representatives, IT staff, and managers with some experience in dealing with vendors. In the same vein, if the potential customer does not have past experience or expertise in dealing with potential vendors, a legal or a technical consultant could be hired to assist in drafting the contracts,. Equally important is to discard the vendor's 'standard' contract, as Lacity and Hirschheim (1995) note, since vendors parade their standard contract in front of their prospective clients, which is usually biased towards the vendor, especially in the area of changes in IS/IT activities and technology (Currie, 1995).

The IS/IT services market can be used in several ways. A key distinction can be made between contracts that specify a service which the IT market is to provide (outsourcing options) and contracts which call for the market to provide resources to be deployed under the buyer's management and control (insourcing option) (Feeny et al., 1993).

Other important points should also be addressed. Deutsch (1994) says that IS/IT outsourcing contracts are "complex" and should be negotiated over a long period of time (Currie, 1995). Some key points must be included in the contract, such as: it has to address expiry and termination clauses and their attributes; strict and adequate security and data confidentiality arrangements; define the IT service provision problem quantitatively and qualitatively; determine the IT technologies and technological skills required of the current service; have a contingency escape plan, as IS/IT service interruptions may occur as a result of labour disputes, natural disasters, and bankruptcy, and define clear escalation procedures; establish unambiguous roles and responsibilities for the different parties involved (e.g. end-users, vendor staff); identify and document all costs associated with the IS/IT service; agreement on contract type and pricing, payment terms and schedules is a critical part of the overall outsourcing agreement. Also, a very detailed and clear service level agreement (SLA) is always needed to cover the entire IS/IT outsourcing process.

Most effective SLAs have the following characteristics (Dugmore, 1996):

- they describe issues critical to the customer;
- they are short;
- they are worded in the customer's terminology;
- they include only targets that can be objectively measured; and
- they define both the vendor and client's responsibilities.

The SLA has to address some major points, including: complaints procedures which will define normal helpdesk procedures and indicate how day-to-day complaints are dealt with; escalation procedures for unresolved complaints; the position of key IT employees; management responsibilities which define the overall management of the IS/IT services; systems and technical support levels which list the applications software to be used and indicate the procedures for

installing new systems and machines; a maintenance and upgrading agreement embodied within the software purchasing agreement. In summary, the SLA represents a managed approach to IS/IT service delivery.

In sum, there are several critical components of a good outsourcing agreement. The emphasis from the outset should not be on who wins the best deal, but rather on negotiating a reasonable contract for both parties. As each aspect of the outsourcing relationship is governed by the contract, both parties need to reach complete consensus. The key document in outsourcing agreements is the SLA. It helps manage the strategic relationship between the outsourcing organisations and the vendors and includes the identification of responsibilities, which is key when processes change. Successful outsourcing relationships focus on results. To be meaningful, these results must be objective, measurable, quantifiable, and comparable against pre-established criteria. Both parties must develop a 'trust' culture between them in order for the outsourcing project to be successful.

8.4.11 Managing the Client/Vendor Relationship

The key to a successful outsourcing arrangement is the underlying relationships between the client and the vendor organisation which act as a set of parameters within which the IT projects can be successful. In essence, the outsourcing relationship reflects the roles to be played by each of the parties once an outsourcing decision is made, and also the way in which each one will relate to the other. A number of key issues must be addressed, including: establish an oversight committee for management of the relationship for critical IT projects; designing and defining the IS/IT outsourcing relationship management process as early as possible and considered as very important; establishing working procedures with the vendor; changing and termination of the outsourcing relationship is also critical (De Looff, 1997); working in close co-operation with the vendor is seen as important to ensure the success of the project; promoting a continuing bond between the vendor staff and end-users, and an attitude of trust between the parties involved from the outset while keeping the process rigorous, disciplined and competitive.

In sum, emphasis is placed on establishing and maintaining close working relationships at all levels with the vendor. However, it is evident that a good relationship takes time to build.

8.4.12 Post-Implementation Evaluation

At the conclusion of the contract it is necessary to evaluate the success of the outsourcing arrangement. Although the extent of the performance evaluation system required will be a function of the complexity and magnitude of the contract, some measure of the effectiveness of the IS/IT outsourced functions must be undertaken. Contracts involving expensive and complex services may require evaluation mechanisms designed especially for that contract. In the same vein, effective contract monitoring requires the establishing of a reporting system that allows for the tracking of performance and costs.

A number of issues have to be considered, including: 1) policy of rewards and penalties tied to the fulfilment of the contract using the control and evaluation mechanisms specified under the contract; 2) continuous evaluation of motives and risk factors throughout the IS/IT outsourcing project's duration; 3) standards, certification and well-defined modular deliverables identified as part of the evaluation process; 4) accountability to be ensured by monitoring and auditing (Baker and Faulkner, 1991); and 5) pay and performance to be linked (Baker and Faulkner, 1991).

In sum, measuring user satisfaction is essential in an outsourcing environment. Monitoring the quality of service to the user departments after the IS/IT functions were outsourced is necessary. The key question for the outsourcing organisation is: can an incentive scheme, or a combination of incentives and punishments be developed that will ensure customer satisfaction with the IS/IT outsourcing operation?

8.5 Summary

In this chapter a set of guidelines were proposed which seek to address the key issues in the construction of a successful IS/IT outsourcing strategy. The guidelines presented in this chapter are the results of the research described in the previous chapters, based on the literature surveyed in Chapters 2 and 3 and on the empirical research discussed in Chapters 5,6, and 7. The guidelines are intended to support those involved in the IS/IT outsourcing decision-making process, especially in the Kuwaiti environment, and in other similar developing countries (e.g. GCC countries). The guidelines are presented as a holistic approach to cover all dimensions of IS/IT

outsourcing strategy. The importance of the careful consideration of the cultural and environmental context in which IS/IT outsourcing is to be undertaken was also stressed.

Organisations should use a sequence of logical actions for the successful implementation of an outsourcing agreement as the IS/IT outsourcing phenomenon has many dimensions, and each aspect has to be thought through and addressed, and cannot be taken in isolation from the other aspects.

The next chapter presents the conclusion of the thesis and an outline of future work.

Chapter Nine

Conclusion

9.1 Introduction

This chapter presents an overall summary of this research study. It provides a description of the major findings resulting from the study, and its contribution to both research and practice. A discussion is provided on its limitations. Finally, the chapter outlines several future research directions which have emerged from this study.

9.2 Summary of Research

The need to conduct cross-cultural research is perhaps even more important in the relatively newly emerging and quickly changing information systems (IS) field (Hunter and Beck, 1999). Research into International Information Systems (IIS) is still a minority area in IS research and there is very little of use as a theoretical framework for researching them (Lehmann, 2001). Lehmann also added that IIS cases are a hybrid of human, social/organisational and technological case elements. Lai (2001) argues that in the MIS discipline, not much empirical work has been devoted to investigate the IIS problems associated with the transfer and management of IS/IT technology. It can be noted also that very little research and very few reports have dealt with ITT and its relationship with the developing countries and their cultures and subcultures (Walsham, 1993).

As the IS/IT outsourcing phenomenon is a relatively new concept, both research and practice in this field are still immature. At the concept level, confusion remain in the literature around outsourcing terms, definitions, 'best' vendor selection approaches and criteria, maintaining the client/vendor relationship, best practice, and pre-and post-evaluations.

From a research point of view, there appears to be a lack of empirical evidence on holistic approaches especially in the developing countries. The main focus is mostly on particular dimensions, such as outsourcing decision strategies. More importantly, at the practical level,

dissatisfaction with IS/IT outsourcing strategy has increased and nearly 70% of the organisations who have undergone IS/IT outsourcing deals expressed dissatisfaction with one or more aspects of their IT service providers (Lacity et al., 1995). Other researchers have found similar results (Currie, 1995; Currie and Willcocks, 1997). Hence, dissatisfaction can here be identified as an outcome in all types of IS/IT outsourcing arrangements in which either the wrong vendor was contracted, or the provision of IT services, or the objectives (i.e. motivation and risk analysis) have been ill defined (Peisch, 1995).

Since then, there has been a call for a holistic approach to IS/IT outsourcing especially for the developing countries where the phenomenon has been significantly in demand due to many regional motivations as discussed earlier in the thesis. IS/IT outsourcing strategy is a complex process involving many features and it requires rigorous attention to its many and sometimes conflicting dimensions. It includes people, structure, skills, technology, culture, environmental attention, and management systems. Studying it holistically does therefore entail unifying several schools of thought and research into one integrative perspective which can build a sound base for more informed research and successful outsourcing practices.

This study has sought to contribute to this area of research and practice. It adopts a holistic view and has a reviewed a large body of literature relevant to IS/IT outsourcing and the many issues involved in its implementation. The initial holistic approach identified from the literature was then explored in the field through a complementary empirical investigation using a combination of survey questionnaire and semi-structured interviews. The survey attempted to assess the level of importance of the factors or elements that constitute the holistic approach to the IS/IT outsourcing phenomenon. This research investigates the current IS/IT outsourcing practices and practical implications in a developing countries' context. Many important dimensions in the outsourcing process were researched and investigated, such as motivation, risk analysis and evaluation, vendor selection procedure, contractual agreement, client/vendor relationship, decision-making process, contract drafting and the legal dimension, the scale of IS/IT outsourcing practices in the different sectors, effect of culture as a key management concept, IS/IT outsourced functions, and so on. It has also attempted to gain an assessment of the level of criticality of the IS/IT outsourcing success and failure factors distilled from the literature. The use of the interviews aimed at investigating in greater detail how various constraints related to IS/IT outsourcing practices are being

operationalised in real organisational settings. Based on these investigations, the research proposes a set of guidelines to direct attention to those aspects likely to produce more successful outcomes in IS/IT outsourcing in Kuwait and other 'similar' developing countries.

Despite the limitations of this study it provides several significant findings.

First, the study has shown that IS/IT outsourcing strategy is gathering momentum and is on an increasing trend in Kuwait regardless of the sector.

Second, shortage of technical staff has been one of the significant problems for the Kuwaiti organisations, and has been a very strong motive for most, if not all, the organisations to opt for an IS/IT outsourcing strategy.

Third, in developing countries such as Kuwait, the introduction of IT is very recent and its use and effect have not been systematically assessed or evaluated. This study can be considered as a step in that direction. Lessons from Kuwait are applicable to other developing countries that are in the process of establishing their information infrastructure. In particular, information technology transfer can be done through outsourcing, but careful attention must be paid to its hard and soft dimensions.

Fourth, it is clear that IS/IT outsourcing strategy is a multi-faceted phenomenon that should be studied holistically in the context of developing countries. The lesson is that the solutions must make sense for the particular context in which they will be implemented considering all cultural and environmental factors. Furthermore, it was found that culture plays an important role throughout the complex outsourcing process and without paying enough attention to this critical dimension the outcome will be more cases of failure.

Fifth, lack of IT project management expertise and the difficulties in managing the outsourcing relationship with the vendor are also considered to be an important impediment to IS/IT outsourcing arrangements.

Sixth, an important finding was the considerable lack of understanding among top management about IT as a potential business operation tool. As has been mentioned previously, senior management are poor also in formulating IT strategies in the light of organisational objectives.

Seventh, it is also clear that the existence of poor IS/IT management in the different sectors must be given due weight. IT strategies were developed ad hoc, largely as a consequence of external (environmental) and internal (structural) change. There seemed to be a wide gap between strategy (the vision) and implementation (the reality).

Eighth, the study has shown that the most critical success factors are effective communication, strong and committed leadership, people development and involvement, adequate resources, paying enough attention to cultural and environmental factors, a deep understanding of the 'real' motives behind IT outsourcing, continuous evaluation of both the 'actual' benefits and 'serious' pitfalls or risk factors, the right procedures to approach vendors, and a crystal clear IT strategy aligned with organisational strategy.

Ninth, the study has shown that outsourcing is also likely to create new job requirements for this major role change for IS/IT department staff. The skills of monitoring contracted work, dealing with outsourcing vendors, and being a coordinator between users and vendors differ greatly from those needed to develop and implement IS/IT functions/services.

Tenth, the study has shown which are the most outsourced IS/IT functions/services and applications found within the different sectors of Kuwait and this has many practical implications for the vendors and organisations. The relatively high degree of IS/IT outsourcing in the different sectors also has implications for the vendors.

Eleventh, this research has made significant inroads into understanding how organisations can design IT outsourcing plans. The clear majority in the three sectors were favouring partial or 'selective' IT outsourcing strategies, rather than total outsourcing. Also the IT authorities within the different sectors prefer short term approaches (1-3 years). IS/IT outsourcing is also on the agenda of all IT executives for future plans.

Twelfth, the survey analysis and interviews conducted as a part of this study have confirmed the significant need to develop guidelines. As was observed throughout the analysis chapters current IS/IT outsourcing arrangements and experience have been variable. Guidelines may lead to many more positive outcomes.

9.3 Contribution of Study

This study aimed to contribute to research and practice.

As theory in the field of IS/IT outsourcing practices in the developing countries is still not well-developed, this study can be considered a step towards theory building. It has brought together a large body of outsourcing-relevant literature and diverse strands of thought into one integrative perspective or approach. In particular, the study has been uniquely effective in identifying and describing the components that make up the holistic approach to IS/IT outsourcing. This study not only provided an empirical assessment of the essential elements in IS/IT outsourcing implementation, but it also assessed the critical success and failure factors that were distilled from a comprehensive review of the IS/IT outsourcing relevant literature. The study has attempted to clarify the confusions surrounding the concepts and practice of IS/IT outsourcing especially for the developing countries.

From a practical point of view, this research has provided major contributions. As many organisations have suffered from low success rates with IS/IT outsourcing implementation, this study has provided useful 'guidelines', demonstrating the critical elements and factors that can engender success or otherwise in outsourcing efforts. From this study, practitioners can derive a better understanding of the activities that are involved in the process of outsourcing the IS/IT function and services that need to be undertaken by organisations. The guidelines proposed by this study should also enhance the current practices of outsourcing, which mostly follow narrowly-focused approaches.

However, as mentioned earlier, most of the studies on IS/IT outsourcing that have been done to date have been carried out in the UK or the USA or in Western nations. Very little published work has been conducted in developing countries in general or in Kuwait in particular and there is still a

lot to be learned in the area of IS/IT outsourcing processes and practices. This study provides the first attempt to explore the 'state-of-the-art' in IS/IT outsourcing in Kuwait (and an illustration of possible similar experience and pitfalls in other developing countries). It is the hope of the author that this study in the practice of IS/IT outsourcing will benefit other researchers and practitioners in this field. Through the research program undertaken in this study it is hoped that better approaches may be developed in particular in Kuwaiti organisations.

9.4 Limitations of Study

As is the case with other research studies, this study has a number of limitations that need to de discussed. These limitations are mainly related to the broadness of the topic under investigation, time constraints, and the limited access to information.

As noted earlier, the IS/IT outsourcing phenomenon is an area of research where theory is still inadequate. This has justified or pushed for an option to follow an exploratory approach in this research. This is particularly the case as the research seeks to develop a holistic and integrative understanding of outsourcing, a feature that demands broadening the scope of the study in reviewing a large body of relevant literature and collecting a large set of appropriate data. However, while the researcher has endeavoured to met such requirement by reviewing various bodies of literature and seeking different types of data from primary and secondary sources, it is not possible to claim the empirical investigation of the study has come across all the issues related to this holistic perspective. Time frame and limited access to organisational information are the main constraints.

A complete investigation of the phenomenon under consideration, especially with the interviews, could not be undertaken (Eisenhardt, 1989). Though all possible efforts were made to interview as many as people as possible in the many organisations studied, lack of time was seen as the main inhibitor. Probably with more time provided for the investigation, richer data could have been obtained.

At the same time, limited access to information provided by organisations was seen as another limitation the study has suffered from. This is a particular issue in the developing countries where

access to information is considered to be a pivotal 'private' issue. As discussed in chapter four, significant efforts were made by the researcher, to obtain such data and access. Social relationships in this part of the world play an important role in achieving this goal.

The descriptive analysis presented in this thesis has it limitations. Nevertheless, with so little previous research in developing countries in general and in Kuwait in particular, this study may attempt to provide good inputs and insights for IT policy makers and managers in the different sectors of Kuwait and similar developing countries.

9.5 Future Work

The research, as explicated in this thesis, has attempted to answer certain key questions concerning the practice, support, future development and trends of IS/IT outsourcing. Along the way new questions have crystallised and avenues for further investigation have opened up. The main areas considered fruitful for further study are set out below.

1. The guidelines presented in this study provide ample opportunities for future refinement and testing. As a first step, the participants in the study reported in this thesis could be asked to comment on the likely effectiveness of the proposed guidelines in their organisations. Some of the participating organisations could then be invited to put them into practice to find out if these guidelines help in the adoption of better outsourcing strategies.

2. This study has addressed the perspectives and opinions of the potential customers, however in future studies there is a need to elicit the perspectives of the vendors as well. It would be helpful to improving practice with the vendor to explore the same range of IS/IT outsourcing issues.

3. Comparative studies could be carried out in countries similar to Kuwait (e.g. GCC) to determine differences, even in the context of developing nations. Like in the Western economies, many studies are comparing the outsourcing practices between countries (e.g. the USA and the UK).

4. Another area for future research would be to examine the inter-relationships between IS/IT outsourcing as currently practised and other developing areas of the application of IS/IT such as, knowledge management, organisational learning, business process management, and electronic commerce.

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PAGE NUMBERING AS ORIGINAL

Subject: Research in IS/IT Outsourcing Strategies in Kuwait

Dear Colleague,

First I appreciate your participation in this structured interview. I would like to inform you that I am a member of staff at the College of Business Studies, PAAET. Currently, I am enrolled as a full-time Ph.D. student at School of Computing, University of Leeds, UK. The aim of my thesis is to obtain a comprehensive understanding of IS/IT outsourcing strategies in the public, private and semi-private sectors of Kuwait.

At this stage of my research I am trying to gather some information regarding the issues under investigation related to different aspects of IT outsourcing. In this questionnaire, I seek your perception, as IT managers and IS executives. Your organisation has been chosen, among others, as part of a representative sample; thus, your co-operation is vital to the completion and success of this research.

May I assure you from the outset that your responses, including everything that is said during the interview, will be completely confidential and anonymous, as my research is concerned with the process and patterns, not the particular behaviour of specific organisations.

I would be extremely grateful if you kindly spend a few minutes of your time to complete the attached questionnaire. Your assistance will be greatly appreciated, and will help me to learn much more about the outsourcing issue.

Finally, I very much appreciate your willingness to help in my research effort and look forward to receiving your reply soon.

Yours sincerely,

Abdulwahed Mohammed Khalfan

Instructions for Answering the Questionnaire:

1. The questionnaire covers the following areas:

1. **Organisational Profile.**
2. **Information Technology Department (IT).**
3. **Outsourcing Terminology and Issues.**
4. **Outsourcing Decision-Making Process.**
5. **Personal and Job-related Profile.**
6. **General Comments.**

2. General Instructions

- **Please answer all questions based on your experience with your organisation. There are no standard answers to the questions, so your answers should reflect the actual practices in your organisations.**

- **At the end of the questionnaire, a blank space is provided for your comments. Please do not hesitate to write whatever you think or feel in relation to the subject being investigated. These comments are essential to illustrate and strengthen the results of this study.**

- **If you have any enquiry concerning any terminology in this questionnaire, please direct your question to me on the following e-mail:**

Khalfan@comp.leeds.ac.uk

The questionnaire should take approximately 30 minutes to answer.

I. Organisational Profile

1. The number of employees in your organization is: *Please tick appropriate box.*

- ☐ 0-9
- ☐ 10-49
- ☐ 50-249
- ☐ more than 250

2. The total number of employees in the IT department is: *Please tick appropriate box.*

- ☐ less than 10
- ☐ 10 to 30
- ☐ 31 to 50
- ☐ 51 to 100
- ☐ More than 100
- ☐ No IT department exists.
- ☐ IT section is part of another dept.

3. Which of the following would best describe the primary activity of your business? *Please tick appropriate box.*

Manufacturing	
Real Estate	
Retailing	
Government-Owned Business	
Government	
Banking/Finance	
Insurance	
Other (please specify)	

II. Information Technology Department Profile and Plan

1. What percent age of your organistion annual budget is spent on the IT department, including hardware costs, software costs, staff costs and external costs. *Please tick appropriate box..*

Up to 5%	
Up to 10%	
Up to 20%	
Other (*please specify*)	

2- How many reporting levels does your IT department has from programmer to manager?
.....

3- Does your organization have a formal corporate business strategy?

☐ Yes
☐ No.

if "NO" skip to question 5.

4- With regard to the organization strategy, would you describe Information Technology (IT) as:

(Please tick the appropriate box. If you selected more than one option, please rank them, as 1 is the most important etc.)

Irrelevant to the strategy	
An enabling tool to the strategy	
A key resource in implementing the strategy	
An integral component of the strategy	

5- Has a formal Information Technology strategy developed by your organization?

☐ Yes
☐ No

If "Yes", how often is it updated or revised?
(Please tick the appropriate box)

Never	
Rarely	
Every year	
Every 2-3 years	
Every 4-5 years	
More regularly as required	

6- In your opinion, how aware is your organization about the state of the art of Information technology (the organization as a whole):

Little Awareness Moderate Awareness Grate Awareness

1 2 3 4 5 6 7

7- How often do you employ each of the following as a method for supplying IS/IT services?
(Please tick one box for each line based on: always = 5, often = 4, sometimes = 3, rarely = 2 and never = 1)

Method	1	2	3	4	5
In-house developments (the internal computer department)					
Local consultation					
Hiring temporary technical staff					
Request a service provider from outside					
Others (please specify)					

8. How does your IT department view its role in the wider organization?
Please tick one box

☐ Mainly strategic (core)
☐ Supportive/operational (non-core)

9. The four stages listed below describe the level of development of the IS/IT unit in an organisation. Please choose the stage that best represents your organisation's current status:

☐ **Initial Stage:** There are few users using basic IS/IT applications.
☐ **Expansion Stage:** The number of users is increasing; experimentation with and adoption of computers is done by many departments; cost increases rapidly.
☐ **Control Stage:** Information system planning is given increased emphasis; organisation control mechanisms are established; efficiency is a major consideration.
☐ **Maturity Stage:** Well established planning makes the IS/IT unit and the organisation integrated.

10. Has the IT department in your organisation ever experienced any difficulties in the delivery of IS/IT services?

☐ Yes. Please continue
☐ No. Please go to Question 11

If "Yes", please indicate the extent to which you consider each of the following factors as contributing to these difficulties
Please tick one box for each factor based on the following: to a very great extent = 5, to a considerable extent = 4, to some extent = 3, to a very little extent =2 , not at all = 1

Factor	1	2	3	4	5
Hardware systems					
Software systems					
Expertise/ Skills					
Understanding of required task					
Others (*please specify*)					

11. In your opinion, to what extent do the executives in your organisation use each of the following methods when they make strategic decisions in regard to IT?
Please tick one box for method based on the following: to very great extent = 5, to considerable extent = 4, to some extent = 3, to very little extent =2 , not at all = 1

Decision making method	1	2	3	4	5
In consultation with IT department					
In consultation with IT user departments					
In consultation with the organisation's own consultants					
In consultation with external consultants					
Other (Please specify)					

12. What are the sources of software used currently in your organisation?
Please tick as applicable, If you select more than one option, please rank them as 1 is the most important source, etc.

Importance use

- ☐ In-house developed.
- ☐ Packaged software
- ☐ End-user developed
- ☐ Consultant developed
- ☐ Vendor developed

13. To what extent do you agree with the following statement?
"It is difficult for organisations to keep up with the latest developments in the information technology industry" *Please cicle the appropriate number*

Strongly agree	Slightly Agree	Neutral	Slightly disagree	Strongly disagree
5	4	3	2	1

III. Outsourcing Terminology & Issues

Please read this definition of " outsourcing ":
Information systems (IS) outsourcing is the transfer of part or all of an organization's information systems/information technology hardware, software, communication networks and systems personnel to an external party (third party).

1. Prior to reading our definition of "outsourcing", were you aware of the term and its meaning?
Please tick appropriate box

- ☐ Never heard the term before.
- ☐ Aware of term, and knew meaning.
- ☐ Heard term, but not sure of meaning.

2- How useful do you consider each of the following to be as a source of information on the topic of outsourcing?
Please tick one box based on the following: very useful = 5, quite useful = 4, moderately useful = 3, rarely useful = 2, not useful = 1, never used = 0

Source	0	1	2	3	4	5
Trade publications (like Byte)						
Employer communications						
Seminars/ conferences						
Personal experience						
Internet						
Co-workers/ profession associates						
Others (*please specify*)						

3- To what extent do you agree with the following statement?
"Outsourcing some or all IS/IT functions could be an appropriate business decision for management to make"? *Please tick appropriate box*

	Total	Some(Selective)
Strongly agree		
Slightly agree		
Neutral		
Slightly disagree		
Strongly disagree		

4- Has your organisation had any past experience with IS/IT outsourcing?

- ☐ Yes. Please go to question 5
- ☐ No. Please go to question 6

5- If Yes, please indicate the type of outsourcing agreement which you have used in your organisation *pleaase tick appropriate box*

- ☐ Total outsourcing.
- ☐ Selective outsourcing
- ☐ Project-based.
- ☐ Function-based.
- ☐ Education and training only.
- ☐ Don't know.

6- To the best of your knowledge, which of the following functions has been outsourced in your organisation in the past 9 years? *Please tick as appropriate*

No.	Function	(√)
1	Client server/Technology	
2	Relational/ object data base management system (DBMS).	
3	Network/data communication management.	
4	System planning and management.	
5	System/software applications development and maintenance.	
6	End-user support.	
7	Desktop systems.	
8	Training and education.	
9	Technical support functions	
10	Disaster recovery planning, testing and performance.	
11	Data services centre (type operations, data backup and storage).	
12	Others (Please specify)	

7- What is the extent of IS/IT outsourcing services in your organisation? Please circle an appropriate number.

NONE VERY HIGH
1 2 3 4 5 6 7

8- Do you think that your organisation is planning to outsource some IS/IT activities to a service provider in the foreseeable future?

☐ Yes.
☐ No.

9- Is strategic outsourcing a part of the IT strategy?

☐ Yes.
☐ No.

10- With respect to any outsourcing agreement, which type of relationship would your organisation prefer? *Please tick appropriate box*

☐ Short-term relationship (1-3 years)
☐ Long-term relationship (over 3 years)
☐ Other (please specify) .....

11- Has the issue of data confidentiality (security) been one of the top concerns of all or most IT authorities in your organisation while discussing the possibility of IT outsourcing?

Strongly agree	Slightly agree	Neutral	Slightly disagree	Strongly disagree
5	4	3	2	1

IV. Outsourcing Decision-Making Process

1- Who would usually initiate the decision on IS/IT outsourcing?

- ☐ Top management.
- ☐ MIS Executive.
- ☐ IT managers
- ☐ IT employees
- ☐ Others (please specify).....

2- Has your organisation ever considered or decided to have multiple vendors working simultaneously in two different functions?

- ☐ Yes please go to question 3
- ☐ No. please go to question 4

3- If Yes in the previous question, which of the following reasons are behind that decision? Please tick as appropriate.

- ☐ More competition and innovation which result in a better output
- ☐ Safeguard against being dependent upon a single vendor.
- ☐ Avoid the inevitable risks of using only one vendor.
- ☐ Have more access to world-class technology and expertise.
- ☐ Other reasons(please specify).....

4- Has your organisation hired a legal representative to represent you (as an organisation) and discuss all your agreements as a part of the decision-making process?

- ☐ Yes
- ☐ No.

5- Have you considered improving the IT department before making the decision to outsource IS/IT services?

- ☐ Yes
- ☐ No.

6- Who usually drafts and revises the contract of an agreement? *Please tick as appropriate*

- ☐ Top management.
- ☐ MIS executives.
- ☐ IT managers.
- ☐ Legal/Law Dept.
- ☐ Others (*please specify*).....

7- In case of legal disputes between your organization and the service provider (vendor), which of the following would you approach for legal action.
Please tick as applicable. If you select more than one option, please rank them based on their priority as 1 is the first option, etc.

Priority
- ☐ Local legal system.
- ☐ International legal systems.
- ☐ Host country of the vendor.
- ☐ Usually specified in the contract signed by the two parties.
- ☐ Others (*please specify*).....

8- To what extent do you agree with the following statement:
"The key factor for establishing a successful outsourcing relationship is to have the right contract or agreement" *(Please circle appropriate number)*

Strongly agree	**Slightly Agree**	**Neutral**	**Slightly disagree**	**Strongly disagree**
5	4	3	2	1

9- Do you think that Arabisation is needed for all systems implemented in the organisation?

- ☐ Yes.
- ☐ No.

10- To what extent do you agree with each of the following as being a possible reason motivating your organisation to outsource IT?
Please tick one box for eachreason based on the following: strongly agree = 5, agree = 4, undecided = 3, disagree = 2 , strongly disagree = 1

No.	Reasons	1	2	3	4	5
1	Reduce and control operating cost (cost containment)					
2	Improve core business competence					
3	Shortage of technical staff					
4	Gain access to leading-edge technology					
5	Share risk					
6	Cash infusion					
7	Enhance flexibility and responsiveness					
8	Enhancement of IT staff expertise					
9	Increased availability of service providers (vendors)					
10	Faster application development					
11	Resources are not available internally					
12	Rapid pace of technological change					
13	Avoiding obsolescence risk					
14	Others (please specify)					

11- To what extent do you agree with each of the following as being a risk factor when dealing with IT outsourcing?
Please tick one box for each factor based on the following: strongly agree=5, agree=4, undecided=3, disagree=2 , strongly disagree=1

No.	Factors	1	2	3	4	5
1	Loss of In-house IT Capability.					
2	Ability to operate or manage new systems					
3	Hidden cost (unmentioned in contract)					
4	Loss of key IT employees.					
5	Rapid pace of technological change.					
6	Security Issues (data confidentiality)					
7	Organisational resistance					
8	Loss of flexibility/ control.					
9	Lack of prior outsourcing experience					
10	Inadequate planning and management					
11	Loss of Innovative ability					
12	Others (please specify)					

12- To what extent do you agree with each of the following factors as being a main criterion in the selection process of an outsourcing provider?
Please tick one box for each factor based on the following: strongly agree = 5, agree = 4, undecided = 3, disagree = 2, strongly disagree = 1

No.	Factors	1	2	3	4	5
1	Price					
2	Reputation/ preference					
3	Flexible contract terms					
4	Scope of resources					
5	Existing relationship					
6	Cultural match					
7	Location					
8	Commitment to quality					
9	Additional value-added capability					
10	Others (please specify)					

13- To what extent do you agree with each of the following factors as being a main drawback in the post-contract period of outsourcing?

Please tick one box for each factor based on the following: strongly agree = 5, agree = 4, undecided = 3, disagree = 2 , strongly disagree = 1

No.	Drawbacks	1	2	3	4	5
1	Poor communications					
2	Viruses brought by others					
3	Low quality services					
4	Lack of documentation					
5	Late deliveries					
6	Further sub-contracting by prime IT vendor					
7	Others (please specify)					

V. Personal and Job-related Profile

1- What is your educational qualification? (*please tick one box that applies*)

- ☐ High school.
- ☐ Associate degree.
- ☐ Bachelor's degree.
- ☐ Master's degree.
- ☐ Doctorate.
- ☐ Other (please specify).

2- How many years have you been in the Information Systems/Technology profession? *(please tick one box that applies)*

- ☐ One year or less.
- ☐ Between 1 and 5 years.
- ☐ Between 6 and 10 years.
- ☐ Between 11 and 15 years.
- ☐ Between 16 and 20 years.
- ☐ More than 20 years.

3- Would you classify yourself as: *(Please tick one box that applies)*

- ☐ Executive/ Upper management
- ☐ Middle management
- ☐ IT manager.
- ☐ IT consultant.
- ☐ IS/IT senior position.

4- Gender:

- ☐ Male.
- ☐ Female.

5- Nationality:

- ☐ Kuwaiti.
- ☐ Non-Kuwaiti Arab.
- ☐ Asian.
- ☐ European/American.
- ☐ Other (please specify).....

6- Degree's major:

- ☐ Information Systems.
- ☐ Computer Science.
- ☐ Engineering.
- ☐ Others (please specify).....

7- Name of your organization:

VI. General Comments:

1- In your considered opinion, when an organisation has decided to outsource some or all of its IS/IT functions, what steps can the organisation follow to make the outsourcing experience as positive as possible?

.....
.....
.....
.....
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.....

2- *In* your opinion, when a decision has been made to outsource, what steps can the OUTSOURCING VENDOR take to make the transition as smooth as possible?

.....
.....
.....
.....
.....
.....
.....
.....

THANK YOU FOR YOUR CO-OPERATION

بسم الله الرحمن الرحيم

THE PUBLIC AUTHORITY
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الهيئة العامة
للتعليم التطبيقي والتدريب

الهيئة العامة
للتعليم التطبيقي والتدريب

المرجع :
التاريخ : ١ / ١ / ١٩٩٩
الموافق :

إلى من يهمه الأمر

يسعدنا أن نقدم لكم الأستاذ/ عبدالواحد محمد خلفان والذي يعمل مـــدرس بقسم الحاسب ونظم المعلومات بكلية الدراسات التجارية ويقوم حاليا بعمـــل بحث ميداني عن " استراتيجية الاعتماد علـــى مصـــادر خارجيـــة في إدارات الحاسب الآلي ونظم المعلومات في الكويت" بهدف إكمال دراسته للحصـــول على درجة الدكتوراه. لذا نود منكم تقديم المساعدة الممكنة لتســـهيل عملـــه كباحث، علما بأن مساهمتكم ستكون لها دور هام في إتمام بحثه علـــى أكمـــل وجه، وتجدر الإشارة بأن جميع البيانات والمعلومات التي ستقدم له ستكون محل سرية تامة ولن يطلع عليها سوى الباحث في مقر دراسته في بريطانيا.

شاكرين لكم حسن تعاونكم

عميد كلية الدراسات التجارية

الدكتور/ يعقوب السيد يوسف الرفاعي

د/ يعقوب السيد يوسف الرفاعي

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REQUEST.DOC

From the School of Computer Studies

University of Leeds
Leeds LS2 9JT

Telex 556473 UNILDS G
Fax 0113 233 5468
Direct line 0113 233 5430
E-mail: office@scs.leeds.ac.uk

22 July, 1999

Dear.

Abdulwahed Khalfan is undertaking PhD research on the issue of the "outsourcing" of IS/IT systems and services. His aim is to develop a set of guidelines on the principles and practice of outsourcing to enable organisations to maximise the benefits and minimise the risks associated with outsourcing.

He is presently engaged in surveying current IS/IT practice in Kuwait and it would be very helpful if you could spare the time to talk to him about your experience.

We would be happy to provide you with more information and a copy of the guidelines on completion of the research.

We hope you will feel able to help.

Regards.

Yours sincerely

T G Gough

Head of Staff Development and PhD Supervisor